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Beginning Anew in the Cinder Pits, by James R. Mears**

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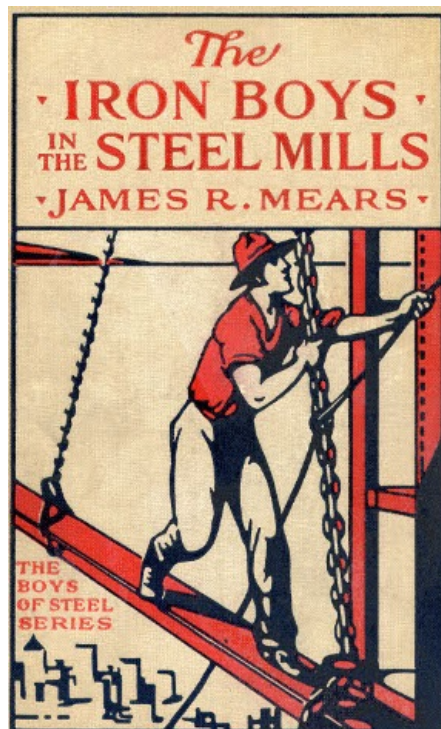
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*** START OF THE PROJECT GUTENBERG EBOOK THE IRON BOYS IN THE STEEL MILLS; OR,
BEGINNING ANEW IN THE CINDER PITS ***





Steve Tossed the Man Out of the Pit.
Frontispiece.

The Iron Boys in the Steel Mills

OR

Beginning Anew in the Cinder Pits

By

JAMES R. MEARS

Author of *The Iron Boys in the Mines*, *The Iron Boys as Foremen*, *The Iron Boys on the Ore Boats*, *The Iron Boys on the Steel Rail Job*, etc.

Illustrated

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The Iron Boys in the Steel Mills

[7]

CHAPTER I

TOO SLOW FOR HIM

THE telephone bell rang sharply. Its very insistence seemed to indicate the nervous haste of the person on the other end of the line.

"Hello!" growled the boy, looking longingly out of the office window as he clapped the receiver to his ear. "What's that? What building? Pity they couldn't pick out a hot day, while they were about it. Yes, I'll tell him. 'Yes,' I said. Can't you hear?"

Several clerks, with coats and vests off, were lounging about the office of the great steel works in the accident department. The sun beat down on the building with relentless energy, and there was scarcely a breath of air stirring. There was little incentive to work, and hardly any one was making the slightest pretext at it.

Steve Rush and Bob Jarvis glanced inquiringly at the telephone operator. Being in the accident department, they were interested every time they heard the telephone bell ring. It was their duty, immediately upon an accident being reported in any of the mills, to proceed to the scene at once and gather all the facts for the future use of the company. Furthermore, they were allowed considerable latitude in the disposal of persons who had been injured. [8]

"Anything doing?" questioned Jarvis.

"Accident," answered the operator in a tone that led one to believe that the mere effort of speaking gave him pain.

"Where?"

"Number twenty-four," meaning the building bearing that number. "That's in your district, Rush."

Bob Jarvis grinned.

"I am in luck that it isn't in my division. It's hot enough here, but excuse me from going into the mills on a day like this. Want any help, Steve?"

"No, thank you. And besides, you are too lazy to work to-day. You would only be a handicap to me. What is the accident, did they say?"

The operator shook his head wearily.

Steve Rush, picking up a pad of paper which he stuffed in his pocket, hurried from the office and started across the street on a run. As he did so he saw a red light burning dimly at the peak of one of the long row of soot-blackened mills that made up the plant of the Steelburgh mills, a signal indicating that a disaster of some sort had occurred in that building. Seeing that signal it [9]

was the duty of the Iron and Steel Police, who kept order in the mills, to report the fact to the accident department at once.

Steve did not need the red light to guide him. He was by this time familiar with the location of all the buildings, though there were some, such as the plate mills, where the armor plate was made for the ships of the Navy, which he had never entered. No one save those who were employed there were able to gain admission to the buildings where secret processes were employed.

Steve dashed by the guard at the gate.

"Here, where are you going?" demanded the guard.

"Accident department."

"Let me see your card!" demanded the officious gate guard.

"Some other time. Can't you see I am in a hurry?" answered the lad, running past the gate and into the yards at top speed.

The Iron and Steel Police like nothing better than an opportunity to show their authority. The result was that Steve had gotten but a short distance inside the yard when policemen, seeing him running, began shouting at him from all sides to halt. Perhaps they had seen him passing in and out, daily, for several weeks. But this made no difference. He was running, and all persons going faster than a walk must have a reason for so doing. It was their duty to stop the runner and learn what it meant. At least, that was the way these guardians of the mills construed their duty. [10]

Steve merely pointed to the red light high up on number twenty-four, as the best answer to their questions. He kept on running. So did some of the policemen, but they were no match in speed, for the supple young fellow, who realizing the necessity for haste, kept on at top speed.

As he neared the building, three uniformed officers dodged out from behind a pile of steel bars, their attention having been called to the sprinter by the shouts of their companions.

"Hold up!"

"I can't!" answered Steve, continuing on toward them.

"Ye'd better stop, if ye know what's good for ye."

"There has been an accident. I can't stop. I'm from the accident department, and——"

"We'll stop ye!" [11]

"The wooden-heads, they actually are going to hold me up! Well, I'll teach them a lesson, even if I lose my job for it," gritted the boy. "Get out of the way, I tell you! Don't you dare stop me here!"

The officers spread out a little, drawing their clubs as they executed the movement, one stepping forward a little in advance of the others.

"There's only one way out of it," muttered Steve. "I've either got to get by them or be called down at the office for being too slow. I don't believe I'll be called down for being late to-day. At least, not for anything that I see just now."

The foremost of the Iron and Steel Police made a grab for the fleeing lad, catching and whirling the boy around, facing in the opposite direction.

"Let go of me!"

A firmer grip was the answer. Rush made a quick turn. His right arm was thrust forcibly against the neck of the policeman, followed by a sudden kick on the shins. The policeman fell flat on the cinder-covered ground.

The other two men sprang forward with drawn clubs to attack the boy who had used their companion so roughly. Their clubs were raised to strike, but ere they could bring their weapons into use they too had dropped to the ground. [12]

"Now, maybe you'll learn to mind your own business," shouted the boy, starting on a run for the building over which the red light still glowed. "The idiots! Why, a man cannot go about his business without their interfering with him. I wonder the company stands for such idiotic nonsense."

Steve dashed in through the door of number twenty-four, which also was guarded by a policeman.

"Accident department," said the boy as he ran in, at which the officer nodded understandingly. "He has some sense," breathed Steve.

The lad's quick eyes caught sight of a group of men standing half way down the centre of the dimly lighted building. It was the open-hearth furnace building, and the group was a little to the right of the furnaces that extended down nearly through the centre.

Hurrying up to the group Rush elbowed his way through to a point where he saw half a dozen men lying on the floor groaning. The foreman was there waiting, having sent for an ambulance to convey the men to a place where they could be treated.

"Burned?" questioned Steve sharply.

"Yes."

"What happened?"

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"Small ladle tipped over, spattering some hot metal on them," replied the man, jerking a thumb toward the suffering men.

"Tell me exactly how it happened."

The foreman did so with evident reluctance. In the first place, an accident in his department reflected on him and his management. Besides this he was so used to seeing men injured, during his long service in the steel mills, that the sight of human suffering did not make the same impression upon him that might otherwise have been the case.

"Who else saw the accident?"

"All the men on the pit and ladles."

Steve quickly had the names of the witnesses and made brief notes of their stories, after which he returned to the foreman to get the names of the injured men. By the time he had completed this, only a few minutes elapsed before the photographer arrived.

Steve pointed to the injured men, as indicating that they were to be photographed first. Next he turned his attention to the ladle that had been capsized. He made a quick examination of this, motioning to the foreman to join him.

"The chain broke, did it not?"

"You can see that one of them did," answered the foreman gruffly.

"I am asking you. No matter what I see. How did it happen to break?"

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"Too much strain on it, I suppose."

Rush picked his way gingerly around to the other side, for the ground was covered with metal that in some cases was still red hot. Reaching a point where he could do so without being burned he poked the broken chain about with an iron bar that he had picked up, until he got the break where he could see it more plainly. There was a dull mark across the break, that seemed especially to interest him. The dull mark extended clear to the surface of the link.

"Photographer, I want a picture, first of this break in the chain, and next a general view of the upset ladle and chain. You had better use a flash light on the link so your picture will show the break plainly."

"Say, what do you want to do that for?" demanded the foreman.

"What do I want to do that for?" repeated the boy, turning sharply.

"Yes, no need to give a fellow away like that. It was an accident."

"Bill Foley, what do you take me for? I'm not that kind of man. I would help you if I could, but I am paid for gathering all the facts whenever an accident occurs. You are the foreman of this open-hearth, and you ought to be the very first one to demand an honest investigation."

[15]

"It just broke, that's all. They're all likely to do that."

"They are all supposed to be examined daily, too," answered Rush quickly. "The company's first care is for the safety of its men. Still, it's not the part of my duty to preach to you."

"Then *don't!*" growled Foley.

"No; I'll do my duty, old chap, though in this case it means some trouble for you."

Two ambulances had arrived by this time and the surgeons were giving first aid to the injured as the men lay stretched out on the still hot cinders on the floor of the dingy mill.

The work of the mill had not ceased. It went on with a rush and a roar, interspersed with reverberating crashes, here and there, that sounded as though the steel roof were caving in.

"Any of them seriously hurt, Doctor?" demanded Steve.

"One is very badly burned. He won't get well. As for the others, I can't promise."

"Should they all go to the hospital?"

"Yes."

"Then take them there, please. Do you need any more ambulances?"

"No; but I wish you would get some men to carry these poor fellows to the ambulances."

"Foley, will you please assign men as litter-bearers?" requested Rush, turning to the foreman of the open-hearth.

[16]

The foreman did so sullenly and grudgingly.

"They might better go home," he growled. "You fellows are trying to make a mountain out of a mole-hill."

Four men were assigned to the task, however, and these, hurrying out, soon returned with two litters. On them the injured men were placed and in turn borne to the waiting ambulances, in which they were tenderly placed. The first ambulance, being filled, was hurried away to the company's hospital, a few doors from the main offices of the mills.

Steve pushed forward his inquiry with great energy. There seemed nothing too trivial for him to inquire about, if it could possibly bear on the accident. So persistent were his inquiries, into these accident cases, as to cause those who were in any way responsible to feel a sense of uneasiness the moment they saw the lad enter their building. Rush spared no one when that person was in any way to blame. He did his work well and conscientiously, without fear or favor. As a result he made many bitter enemies as well as some life-long friends.

The men in the mills with whom he came in contact in these hurried visits had come to regard Steve as one among many. He did not side with the bosses, and, though he was the friend of the men, he did not side with them unless their side chanced to be the right one. [17]

The reader has already recognized in Steve Rush and Bob Jarvis, the Iron Boys, who, as told in "THE IRON BOYS IN THE MINES," began their career in the great industrial world, at the foot of the deep shaft in the Cousin Jack Iron Mine. It will be remembered that they distinguished themselves there in the beginning by their courage, resourcefulness and persistent efforts to serve their employers in the best possible manner. It was in this, their first employment, that the Iron Boys became friends after a fight and from that moment began a friendship that was destined to last for years, in fact as long as the lads lived. Their escapes from death were many and thrilling, but because of their courage and cool-headedness they came safely through their apprenticeship, winning promotion and the confidence and respect of their employers.

Again, as narrated, in "THE IRON BOYS AS FOREMEN," Steve Rush and Bob Jarvis met with new and exciting experiences. They became, as will be remembered, involved in a great strike, and because of their fidelity to what they believed to be the right, were expelled from the union, even after they had by their heroic efforts saved the mine from destruction by fire and dynamite, and thus saved the lives of many of their companions. The Iron Boys through their further efforts exposed the leader of the strike, proving him to be a dishonest man and a rascal of the worst type, who, instead of working for the interests of the honest but misguided members of the union, was seeking power and money, regardless of the suffering that his unworthy ambition brought to others. In the end the lads, after deeds of violence had been perpetrated, saved the bridge that was the key to the transportation of the company's product, for all of which they were handsomely rewarded by their grateful employers. [18]

From the mines the Iron Boys took the next step in their calling which they were determined to learn from start to finish. This second step had to do with the transportation of the ore from the mines to the mills. It will be recalled by readers of "THE IRON BOYS ON THE GREAT LAKES" that the lads shipped on an ore boat; that they boarded the boat through an ore chute, being dumped in the hold, and that they nearly lost their lives before making their way to the upper deck of the ship. Their first experience on shipboard had to do with the fire room in which they were put to work as stokers, and where they had a most unique but desperate battle with the "black gang" of the stoke hole. Collision and shipwreck were a part of their early experiences, during which Steve Rush and his companion again proved themselves heroes. And now, after a season on the Great Lakes, they had moved on to the steel mills, where the red ore that they had helped to take from the depths of the earth was worked up into pig iron and steel. The boys had declined to take letters of introduction to the mills, proceeding there like any one else and asking for jobs. [19]

However, unknown to them, the president of the mining company had written to Mr. Keating, general superintendent of the mills, asking the superintendent to give the boys the best possible opportunity to learn the business. The president had recounted some of their achievements, so that, though they did not know it, the superintendent was fully prepared for their coming. He had taken a liking to the frank-faced, athletic young fellows the moment he first saw them. He saw in them the making of splendid men. He reasoned, however, that their rise would be quicker were they to start in the offices of the company. It seemed too bad to start them with the rank and file in the turbulent mills, where hard, rough men toiled by day and by night at their hard labor.

Only the strongest could survive, and Mr. Keating, despite the athletic appearance of the Iron Boys, did not believe they possessed the endurance to stand up under the strain of work in the mills. [20]

That was where he underrated the staying qualities of Bob and Steve. They had been placed in the accident department, where they had distinguished themselves almost at once. No such clear and thorough reports had ever been made of accidents in the mills as had been turned in by Steve Rush and Bob Jarvis. But Steve was not satisfied. There were some features about the work that he did not like. In the short time that he had been at the work he had witnessed scenes that had stirred him profoundly. Where his duty called him there was always suffering, and in many cases, death. Though the steel company did all in its power to protect its men, accidents of the most harrowing nature were bound to occur in that hazardous calling. The Iron Boys could not hold back or turn their heads at the sights they saw. It was their duty to face the ordeal, and face it they did.

Steve, after all the injured men had been loaded into the ambulances, hurried out, leaped to the tailboard of the last ambulance and went rolling away toward the company's hospital. He clung easily to the stanchions at the rear of the swaying wagon, thinking over the facts he had gained. The ambulance surgeon hummed softly to himself, now and then casting an eye over the moaning men who were being conveyed to the hospital. The surgeon's mind, perhaps, was far away and on more peaceful scenes.

[21]

"As soon as you have examined the men let me know who is in the best condition to be talked to," requested Rush, as the ambulance driver pulled up before the hospital. "I must get the stories of the men so far as possible."

The surgeon nodded. By the time Steve entered the hospital the grime had been washed from the faces of the burned men. Steve halted as his eyes caught sight of a boy whose eyes were fixed upon his own.

"Why, Ignatz Brodsky!" exclaimed the Iron Boy. "I didn't know you were hurt."

The Polish boy, whom Steve had befriended on several occasions, thus winning the lad's undying devotion, nodded feebly.

"Are you suffering?"

"Yes; I die."

"Nonsense. Doctor, look after Brodsky here as soon as you can, won't you?"

"I'll attend to him at once," answered the surgeon. "Why, he isn't badly hurt. He will be able to go home, perhaps by to-morrow."

"There, what did I tell you, Ignatz? Of course you are all right. I will tell your mother how you are as soon as I can get away from the mills. Is there anything you want me to do for you besides that?"

[22]

"No, sir."

"Are you able to tell me what you know about the accident?"

"Yes."

Ignatz, in halting tones, gave the investigator a homely but graphic account of how the disaster had occurred. In the first place, the men had been to blame because they had no business to be so near the small ladle of molten metal when it was being hoisted from the pit. In the second place, Ignatz said, that, after the accident, he had heard some of the men talking about the chain being defective. Steve secured the names of these men from the Polish boy, then hurried on to the others of the injured. The lad had a pleasant, encouraging word for each, making memoranda of things the wounded men wished him to do for them. They knew he would do what he promised, and it was a source of great comfort to them to know that the messages they wished conveyed to their families would have the most careful attention from the Iron Boy.

Some of the men were too badly hurt to be able to talk. These Steve did not try to question. He did, however, question others, who had been less severely injured.

[23]

The boy left the hospital with stern, set face. He drew a long breath as he emerged into the burning sunlight, shook himself and hurried to the office. There he made a verbal report to the head of the department, which very plainly placed a good share of the blame on the foreman of hearth number seven, Bill Foley.

While the head of the accident department was closeted with the general superintendent in an adjoining room, giving him the details of the disaster, Steve was busily engaged in making out his report, which he dictated to a stenographer. Bob Jarvis stood on the other side of the stenographer, his eyes fixed on Steve as he made his report. Bob, listening intently, was getting points for his own work.

Having completed his report, Rush got up, stretched himself and looked at Bob.

"I'm through with this job," announced Steve, with emphasis.

"Through with it? Why?"

"It's too slow for me."

"What's that you say, Rush?"

The Iron Boy turned and found himself looking into the face of the general superintendent.

CHAPTER II

[24]

MAKING A NEW START

BEG your pardon, Mr. Keating," apologized Steve, reddening a little.

"I "So this work is too slow for you, eh?"

"Yes, sir."

"It strikes me that it has been rather the opposite. You certainly have excitement enough, don't you?"

"Well, yes, sir, but——"

"Step into my office."

"Rush's going to get his," mumbled the telephone operator, coming to life for the moment. "I shouldn't care to be in his shoes just at present."

"Sit down, Rush. I will confess that I am rather surprised at the remark that I just overheard you make."

Mr. Keating was a man well past middle age. His hair was gray, his bristling mustache of the same shade, gray, twinkling eyes adding greatly to the general effect of the face. But it was the square-set jaw and the firm set of the lips that revealed the iron in the make up of the superintendent. All this Steve Rush saw at a glance and understood.

"Perhaps I should not have been quite so outspoken," admitted the lad. "That is a fault of mine." [25]

"That is not always a fault. Most honest men are outspoken, my lad. But to return to the subject of our discussion. I was in hopes you would like the place we have given you. It is an important position and difficult to fill. On the other hand, you have shown remarkable aptitude for the work. You have done better in it than any other man we ever had."

"Thank you, sir."

"All the more reason why I wish you would stay. You are not thinking of leaving the employ of the company, are you?"

"No, sir."

"Then what is the matter?"

"Nothing is the matter, sir, except that I don't particularly enjoy being the trouble man. It is really my business to get others into trouble, and——"

"Not at all."

"It so turns out, just the same."

"I am sorry you look at it in that way."

"What is more, Mr. Keating, I wish to learn the real business of iron and steel making."

"It strikes me that you have a pretty good start already," said the general superintendent, a grim smile appearing on his face.

"I shall never learn it where I am. Of course I have learned a great deal about first aid to the injured and the like, also location of the different departments in the mill. However, sir, I want to learn the business, and I want to learn by actual experience everything about the mills." [26]

"A very praiseworthy ambition. But we like you very well where you are. As I have already said, we have never had men in the accident department who were as thorough and trustworthy as you and Jarvis. It is also easy work, compared with other occupations in the mill."

"That is just it, it's too easy. Give me something hard, something that will keep my muscles up. We have been leading an active life for the past two or three years, Mr. Keating. We'll go stale if we don't get to work soon."

"Will Jarvis wish to change also?"

"I have not talked the matter over with him. He usually wants to go with me wherever I go."

"Have you any choice as to department or work?"

"No, sir, save that I should like to work through all of them."

"But, lad, there are many trades represented in the mills. You cannot hope to learn all of them," objected the general superintendent.

"I do not want to learn them all, Mr. Keating. There is only one trade that I want to learn, and I *do* want to know all about that, even though it takes me years to learn it." [27]

"What trade is that?" smiled the superintendent indulgently.

"The steel trade. I want to learn the steel business. I have a fairly good working knowledge of the ore business right down to the gates of the mills, but when I get inside the fence surrounding the mills I am in an unknown world, as it were."

"So it is to a majority of the men working there. But I begin to understand. You have ambitions," laughed Mr. Keating.

"Yes, sir, I have."

"What have you ambitions to become, if I may ask?"

"To have as thorough a knowledge of the manufacture of steel as any man in the country," answered Steve Rush boldly.

Mr. Keating gazed at the lad keenly. He saw that the boy meant exactly what he said. The superintendent saw the Iron Boy in a new light, from a new viewpoint as it were. He had been told by Mr. Carrhart, president of the mining company, that these were two unusual boys, and Mr. Keating had found them to be unusual in that they were more efficient than any young men he ever had had under him in the offices. He had not, however, fully realized the extent of the ambitions of the boys. Here was a boy in a nice, easy berth, drawing twelve dollars a week, and the boy was complaining because the work was too easy. He wanted something to do *to keep his muscles up!*

[28]

The superintendent's first inclination was to laugh, but the sober, earnest face of the Iron Boy robbed the situation of its humor.

"I have handled men for many years, my lad, but I am forced to admit that I never had such an unusual demand made upon me."

"I am sorry, sir, if I—"

"It is usually quite the opposite. The young fellows want something easier to do, and at more pay. Let me see; you boys, I understand, were drawing more than a hundred dollars a month in the mines up on our iron ranges?"

"Yes, sir."

"How much did you get on the lakes?"

"The same."

"And you are getting twelve dollars weekly here?"

"Yes, sir."

"Quite a come down from twenty-five dollars a week to twelve, isn't it?"

"Yes, sir, as far as dollars and cents go. But there are other things to consider when one starts out to make a future for himself."

"You are right, my lad; there *are* other things to consider. The trouble is that few of our young men of the present generation consider them. They expect to be pushed along to the head of the procession, but without the trouble of taking their turn in the ranks and learning the business by the sweat of their brows. I should like to be able to give you more money; in fact, I have been considering giving you an increase very soon. If you change, of course, I shall not be able to do that. Wages in the mills are fixed."

[29]

"Yes, sir."

"A certain scale of prices prevails and it is not within my power to change those prices. Only the Board of Directors can do that by a two-thirds vote."

"I shall be content with my present wages," answered Rush.

"That is just the trouble. You will not receive your present wages. Your wages will, of necessity, be reduced with your change of occupation."

"Oh, very well, sir."

"Yes! I am sorry, but the rule is inflexible."

"How much shall I get in the mills, sir?"

"We start all our boys and men at a dollar a day."

"Yes, sir."

"Are you still of the opinion that you want to make the change?" questioned the superintendent, with a quizzical smile.

[30]

"Yes, sir."

"Then all I have to say is that you are the kind of young man that the steel company is looking for," announced Mr. Keating, pushing back the papers on his desk, toying thoughtfully with a paper cutter.

"Thank you. Then you will give us a place in the mills—you will permit us to make the change without prejudice, will you not?"

"Indeed, yes."

"Where will you put us?"

"I shall have to think about that. I'll have to pick out something hard," laughed the superintendent. "I think we shall be able to satisfy you on that point."

"I shall be satisfied, whatever you decide."

"Wait a moment. I will speak with the assistant superintendent. Perhaps we can settle the matter right here."

Mr. Keating stepped into an adjoining office and was closeted with his assistant for some time. What was said there, of course, Rush did not know. When the superintendent returned he was smiling.

"Well, sir, it's all settled," announced Mr. Keating. "You will wish you hadn't spoken."

The superintendent chuckled as if it were an excellent joke. Steve smiled in sympathy with the joke that he did not understand. [31]

"You will receive the munificent sum of a dollar a day, and your job will be in the cinder pits."

"Yes, sir; what do we do there?"

"Shovel cinders the greater part of the time. You know the cinder pits are located in the open-hearth furnace building. The cinders and slag are dumped into these pits after the casts are made. When the pits get cool enough the pitmen get in and shovel the stuff out. Are you fully decided to take the job?"

"Yes, sir."

"I see there is no swerving you from your purpose. To tell the truth, I was in hopes you would draw back. But, after all, I am glad that you did not," added Mr. Keating, nodding his head reflectively.

"When do we begin the new work, sir?"

"You may start in to-morrow morning. I will have the foreman make a shift in order to make room for you."

"Thank you, sir. What pit do we work in?"

"I will put you in number seven, Foley's pit."

"I think I see my finish," muttered Steve. He knew how Foley felt toward him for having made the report he did on the accident that day, and Rush expected no quarter. [32]

"I'll take what comes to me and keep my mouth shut," he added to himself. But had the Iron Boy known all that was in store for him he might have changed his mind.

CHAPTER III

 [33]

IN THE CINDER PIT

BOB JARVIS had been a little doubtful when Steve told him of the change in their work. Bob thought the present job was quite good enough, all but the pay; yet he was willing to get along on twelve dollars a week so long as he had so much leisure time.

On the following morning the two boys reported for duty to the foreman of number seven hearth, Bill Foley. There was a gleam of quiet satisfaction in the eyes of the foreman as he saw the boys coming toward his division. He had been informed that they were to work on a trick in number seven section. Foley did not know why the change had been made. He believed that, for some reason, the boys had been reduced to the ranks. The only directions he had received regarding what was to be done with the Iron Boys was the injunction of the assistant superintendent's messenger, to "make them work till they can't tell a cinder pit from a hole in the ground."

Foley grinned.

"You bet they'll work! Everybody in my division works."

Foley's head pitman was a Pole named Watski Kalinski, a heavy-faced man, surly and quarrelsome at times, especially with the few men that were under him. He understood cleaning the cinder pits, however, and he was kept in his place because of the work that his shift got through with, rather than for any especial intelligence that he might possess; which, as a matter of fact, he did not. [34]

Foley beckoned to him.

"Put those two boys in number seven pit."

"Easy or light?" grinned Watski.

"Easy or light, you mutton-head. That don't mean anything. I know what you are getting at, but I'll have you understand that these young gentlemen are friends of mine. Give them the best you have in the house."

The words had apparently been spoken in all sincerity, but Watski grinned knowingly.

"I'll make the children happy, Mr. Foley. Do they begin this morning?"

"Yes; start them off now. I'll be around later in the day to help carry out the remains."

Watski chuckled. He walked over to where Bob and Steve stood waiting for orders to go to work, surveying them from his beady, red eyes; beady because nature had made them so, red from the heat and the cinders of years in the mills.

"What's your name?" he snapped.

[35]

"Rush."

Watski roared.

"That's the trick. Your name's Rush and you'll be Rush, for you're going to rush if you work in this section. What you been doing?"

"What we have been doing doesn't matter, so far as you are concerned. It is what we are going to do that concerns you. Will you please put us to work, or have some one do so who knows how?" asked Steve, perhaps with a touch of maliciousness in his tone.

Kalinski bristled.

"Put you to work? Get somebody to put you to work?"

"That is what I wish, sir."

"Shut up!"

"Thank you, sir."

"What's the other kid's name?"

"My name is Bob Jarvis, and don't you take any liberties with it, unless you've got an accident insurance on your life."

Watski's face wrinkled angrily. He clenched his fists, and for the moment it looked as though he would fall upon Jarvis and punish him for his boldness. Bob turned the tide by asking:

"When do we go to work? We're losing time?"

"Yes; where do we work?" urged Steve.

"See that cinder pit there?" leered the assistant.

[36]

"Yes."

"Get in! Got your shovels?"

"No."

Growling and making faces to himself the Pole walked abruptly away, returning a few minutes later with two shovels. He handed them to the boys, giving the lads a shove toward the cinder pit.

"Be good enough to keep your hands off me, and at the same time kindly tell me exactly what you wish me to do," demanded Steve.

"Wooden-heads! Fools! There is the shovels and there is the cinders. Get them together; shovel the cinders out; then if you don't get enough work shovel them back again. Oh, such——"

"Come on, Bob; Watski is getting excited. He is likely to throw a fit and fall on a hot plate, or something."

Steve walked over to the pit, surveying it questioningly.

"That looks pretty hot to me, sir. Is it ready to be thrown out?"

Bob was standing on the edge gazing at the cinders. A faint cloud of steam was rising from the pit, on which the hose had been played gingerly for some time.

Watski gave him a push, Jarvis jumping to save falling in on his face. The drop was not more than two or three feet to the cinder bed, which was some fifteen feet broad at its top, tapering slightly toward the bottom.

[37]

Bob went in up to his knees. No sooner had he done so than he uttered a wild yell.

"It's on fire! I'm burning up!" he howled. "Help me out of this hole! Wow!"

Steve saw that Bob really was in distress.

"Jump out, if it's too hot."

"I can't. I'm stuck fast."

Watski was doubled up with laughter. He howled with delight, sitting down on the cinders with arms about his knees rocking back and forth with shouts of merriment.

In the meantime Steve threw his shovel into the pit, and crawling into the pit, used the shovel for a support while he pulled his companion out.

Bob's trousers were burned to the knees; his underclothing was burned and the skin of his shins was blistered from contact with the hot cinders and slag.

Steve was so angry that he could scarcely control himself, but he was determined to avoid a fight if possible.

"Did he do that on purpose?" demanded Jarvis.

"He was in a hurry for us to get to work, and——"

[38]

"Get busy there, you lazy louts or I'll dock you for lost time!"

"You pushed me in!" shouted Bob. "You'd better not dock me. I'll have something to say about that."

"What is this disturbance about?" demanded Foley, coming up at that moment. "Watski, why aren't these men at work?"

"No good. Afraid of hot cinders."

"Does that look like being afraid?" interjected Steve, pointing to his companion's burned trousers. "I call that an outrage. However, we'll not trouble about it this——"

"You'd better not," growled Kalinski.

"This time," added Rush. "But I hope nothing of the sort will happen again. We are used to taking care of ourselves, and if we think we are being imposed upon we are likely to take matters into our own hands."

"Is that a threat—a threat directed at Kalinski?" questioned Foley, ironically.

"Oh, no. We do not make threats; that is, not until afterwards, perhaps," answered the lad significantly.

"Don't you think it would be a pretty good idea for you men to get to work?" demanded Foley. "You won't last long at this rate."

"If you can fix that pit so it will not burn the skin from our legs we will go to work."

[39]

"That's up to you."

"Then I will see what I can do. I hope the Honorable Mr. Watski Kalinski will keep away, even if he is our boss."

"Yes, he'd better keep his distance from me," growled Bob, who had been growing angrier as he gazed at the grinning pit boss.

Rush, after a quick glance at both the foreman and pit boss, began looking about for a plank. He found a piece of the required length after a time. This he threw into the pit, then climbed down on it. His shovel threw out a quantity of the hot cinders. Kalinski got them full in the face. It had been purely an accident on Steve's part, for the boss had changed his position in order to look over into the pit to see what his shoveler was doing.

The cinders burned Watski's face; they filled his eyes and filtered down inside his shirt. The boss danced a jig for the next minute or so, slapping his chest, pulling his shirt as far from him as he could and shrinking back to keep the hot stuff from burning holes through his skin.

"Whoop!" howled Bob Jarvis. "Now, how do you like it? Got a dose of your own hot stuff that time, didn't you? Good for you, Steve!"

Rush's face reddened.

[40]

"I am sorry, sir, but that was an accident. I did not know you were there. I thought you were sitting down over yonder."

Watski could not speak. His rage was consuming him and the cinders were keeping his hands fully occupied.

"I say, sir, it was an accident."

"It's a lie!" exploded the boss. "You—you did it on purpose!"

With a growl of rage the Pole leaped into the pit, intending to reach the plank. Steve hopped out on the opposite side and Kalinski fell on his face in the hot cinders.

Bob uttered a howl of delight. This was much better than he had hoped for. Watski was getting his punishment without the boys having to administer it, and he was getting it properly, judging from his yells.

By this time several men had gathered about the pit, making no effort to hide their delight at the Pole's predicament.

Rush hopped down to the plank, leaving his shovel on the ground. He grabbed Kalinski by the

shirt collar and the seat of the trousers, and, without any apparent effort, tossed the man out of the pit. The spectators gazed at the young man in amazement. His great strength was a marvel to them.

"Oh, why didn't you let him toast some more?" grumbled Bob. "He hasn't had enough yet. I tell you, he's only half baked." [41]

"Take your shovel and get in here. We shall be in trouble the first thing we know," warned Rush.

Bob obeyed reluctantly. He limped a little as he walked toward the cinder pit, for his legs pained him and there were blisters on his feet where the hot cinders and slag had burned through the shoes. Besides, he felt that he had not done his duty.

"Did you hear Watski give you the lie, Steve?"

"Yes, I heard," answered Rush, beginning to throw out cinders again. "He isn't worth bothering with. Let him alone. We cannot afford to have any fights at the beginning. I was in hopes things would run along smoothly."

Foley leaned over the edge of the pit.

"I'll report you both; I'll have you fined!" he growled.

"Go on!" jeered Rush. "Report the other man. If you don't, I will."

"Let me at him! Let me at him!" yelled Kalinski, starting for the pit. "I'll rub his nose in the hot slag, I will! I'll show him he can't throw hot cinders in my face. Git out of my way!"

CHAPTER IV

LAYING HANDS ON THE BOSS

IT was Foley's place to order the pit boss to let the boys alone and attend to his own business. Instead, Foley turned and walked away. He did not go far, however. He made his way to one of the open-hearth furnaces, where, unobserved, he peered around the corner of the red-hot pile of brick.

Rush saw that an encounter was unavoidable. He was sorry, but he decided quickly to avoid coming to blows if possible.

Kalinski had stooped over to pick up a shovel. In his rage he was going to attack the boys with it. Steve was out of the pit in a flash.

"Keep out of this, Bob, unless the others mix in. I'll take care of that fellow."

When Watski straightened up he found the Iron Boy standing over him with a pleasant smile on his face.

"I wouldn't do that, were I in your place, Kalinski. I tell you it was an accident, and I am sorry I threw the cinders over you. I give you my word that it was an accident."

Watski dropped his shovel, and uttering a yell of rage, struck at Steve. The blow, had it reached its mark, would have knocked Rush backward into the hot cinder pit. He dodged the blow, however; then suddenly Watski Kalinski found his wrists in a grip that made him writhe. The Iron Boy's thumbs were pressing on sensitive nerves. [43]

"Ouch! Ouch!" howled the Pole.

Foley, in his wonder, forgot to hide himself. He stepped from the protection of the furnace.

"Leggo my wrists! Leggo, I tell you!"

"Will you behave yourself if I—"

"I'll knock your head—ouch!"

The tears were actually running from the eyes of the pit boss. He was suffering great pain. But he got no sympathy from the mill hands who had gathered about. They were laughing and jeering at him, not especially because they sided with Rush, whom they did not know, but because Kalinski was not popular among them.

At this juncture Bill Foley came running forward. He saw that his pit boss was getting the worst of it, and that Rush would soon gain the sympathy of the crowd. He did not wish this to happen. Had it been the other way Foley would have been perfectly satisfied.

The furnace foreman dashed around the pit, headed for the humiliated boss. Jarvis saw him coming. Bob stepped in front of Foley.

"What are you going to do?" demanded the lad. [44]

"Get out of my way before I hurt you!"

"And you keep out of this, or I'm likely to forget myself and hurt you. You know it wouldn't look

well to have the foreman licked by one of his men," grinned Jarvis.

Foley gazed at the Iron Boy in astonishment. All at once he raised his foot, delivering a vicious kick. The foreman never quite understood how it happened, but the next second he found himself falling backwards into the pit, while the mill hands set up a roar.

Jarvis had been on his guard. When the kick was delivered, he caught the ankle of the foreman, giving it a quick jerk that threw the fellow off his balance. There could be but one result. Bill toppled over backwards, landing on his head in the pit.

"Get him out of there! He'll burn to death, Bob," warned Rush.

Bob helped the foreman out, but with reluctance.

"It would serve you right if you did burn. But don't you try any of your funny business on me again. You won't get off so easily if you try it on another time."

"Kalinski, do you think you can let us alone if I release you now?" questioned Steve.

The Pole did not answer, but if there ever was murder in a man's eyes it was in Kalinski's. Steve put on a little harder pressure. [45]

"Yes, yes; leggo! I don't want anything to do with you. I——"

Rush released the man instantly. At first the Pole acted as though he was about to spring upon his remarkable young antagonist. He seemed to think better of it, however, after a glance into the unsympathetic faces about him, then into the smiling face of Steve Rush.

"Will you go to work, or must I throw you out of the mill!" snarled Kalinski.

"We shall be glad to go to work if you will let us alone. I wonder what the superintendent would say if he happened along about this time?"

"I shall fine both of you two days' pay," announced Foley, making a memorandum in a soot-soiled memorandum book.

"Very well, sir. That is your privilege. It is ours to protest, if we think best, which is not saying that we shall. We have been used most disgracefully, and——"

"You didn't think of that when you got me into trouble, did you?" sneered the foreman.

"So that is where the shoe pinches, is it? I begin to understand. You propose to get even with us? Well, all I have to say is that I should advise you not to try it. We have come here to work, and at our own request. If you become unbearable I warn you we are perfectly able to take care of ourselves, and we shall do so. We don't propose to submit to any insults from you or any one else, Bill Foley." [46]

"Just put that in your pipe and smoke it!" chuckled Bob.

Steve was at work again. Jarvis slowly followed his companion to the pit, where both lads stood on the plank and shoveled out cinders. They gave no further heed to the foreman or the pit boss. The latter two had drawn back some little distance, where Kalinski was gesticulating and talking to Foley with considerable emphasis.

In a little while the shovelers had gotten down to where the pit was aglow with coals. The plank beneath their feet began to blaze up, the smoke getting into their mouths and noses, setting the lads to sneezing.

"I am going to get out of here," announced Bob. "This is worse than the stoke-hole."

"Oh, pshaw, it isn't nearly so hot, though it is about as dirty. I know, though, that the men do not work in a pit as hot as this one is. There must be some other way out of the woods. Yes; we will climb up now. We shall be burned to cinders soon if we don't."

"Is that a joke?" demanded Jarvis. [47]

"Is what a joke?"

"Burned to *cinders*."

"Certainly not," answered Steve, placing the plank against the side of the pit. "Go on, Bob."

The latter lost no time in crawling from the hot hole. They were met by Kalinski at the top.

"Well, what is it now?" he growled.

"Isn't there some way of cooling that pit off a little? We can't work down there, or dig any deeper, until it gets cooler. Why, it will burn the clothes from our backs."

"Hope it does! Hope it burns you up," snarled the pit boss.

"I hope you haven't got your wishing cap on," answered Jarvis, with a grin that was intended to be humorous. "If you have, I'm through."

"Can you not put some water on the cinders? I see a hose right here," added Steve.

The boss saw that the boys were determined. He knew that there would be no more work done in the pit that morning, unless the pit was made livable for the men. He could not afford to have the work delayed, for that would reflect on him.

Watski took up the hose sullenly, turned a tiny stream, and with a finger over the nozzle gently sprayed the bed of hot coals. A cloud of steam shot up into the air, whereat he shut off the water instantly. Steve was watching the process interestedly. [48]

"I wonder why he doesn't turn the water in full force?" mused the boy. He would not ask questions of the surly Pole, preferring to pick up what he could by observation. Bob had sat down on the floor, where he examined his burned clothes ruefully, at the same time gently rubbing the blistered spots on his skin.

"I wish I dared throw that animal into the pit head first," muttered Jarvis, eyeing the pit boss resentfully. "I wonder why they have such a beast at the head of anything."

The rumble of the charging machine, as it thundered along the tracks on the other side of the open-hearth furnaces with its load of pig iron and scrap for the furnaces, attracted Bob's attention for the moment. He was called to attention by the voice of the boss.

"Rush, get in there. It's cool enough now. Look here, you," he added, addressing Jarvis, surveying the lad from head to feet as if trying to decide upon the most vulnerable part of the young man's anatomy for an attack.

"I'm looking. What's the answer?" retorted Jarvis, gazing into the eyes of Kalinski.

"There ain't room for two such lummoxes as you in that pit now. You take the next one on number eight furnace." [49]

"Is it as hot as this?"

"Hotter."

"Then I guess I will wait until it cools off," answered Bob, sitting down again.

Watski's face showed a dull red under the cinder soot.

"You get up and go to work, unless you want to lose your whole week's wages. What do you think this is—a baby hospital?"

"I didn't know but it might be, seeing you live here," retorted Jarvis, taking his time at getting up, but keeping a weather eye on Kalinski, who had a habit of suddenly forgetting himself, as Jarvis already had discovered.

"Shall I cool the pit off?"

"How?"

"With the hose."

The pit boss grinned.

"Think you can do it?"

"Of course I can do it. It doesn't take any great amount of skill or intelligence to handle an inch hose, does it?"

"Use it if you want to, but remember I warned you."

"Against what?" demanded Bob, eyeing the boss half suspiciously.

"Against using the water." [50]

"Pshaw!"

Jarvis went over to the tap, turning on a full stream of water. When he straightened up he saw that Kalinski was walking rapidly away, so rapidly, in fact, as to be almost on a run. Bob gazed after him inquiringly.

"I wonder what ails that Indian?" muttered the lad. "He seems to be in a great hurry about something."

Bob's attention was attracted to the water, which was now spurting from the nozzle of the hose, the stream shooting right over where Steve was at work, sending a shower of fine spray down on him.

"Hey, what are you doing up there?" he shouted.

"Watering the plants," scoffed Jarvis.

"You just turn that hose the other way unless you are looking for trouble. Why don't you get to work?"

"Going to. I am at work already."

"Where is Kalinski?"

"He was sprinting down the shop the last I saw of him. He seemed to be in a mighty big hurry about something."

Bob dragged the hose over to the pit behind open-hearth number eight. Then he began playing the stream on the cinders full force. He did not know that this was a very dangerous proceeding. No one had told him, and the pit boss had merely intimated it when he said, "Remember, I warned you."

[51]

"This is fine," grinned the boy. "I could do this all day and not get a stitch in my back. Guess I will wet my legs."

He turned the hose on his blistered legs, the water feeling cool and refreshing, for the lad's burns were becoming more and more painful as the dust from the mill settled into them.

Jarvis shifted the nozzle to the other side and bathed the other leg, at the same time keeping a watch for the boss. The latter was nowhere in sight. He had gotten well out of harm's way, evidently knowing what was about to happen.

Having bathed himself to his satisfaction Jarvis began playing the hose on the cinder pile. The first contact of the water threw up a great cloud of steam, followed by a sharp, hissing sound. Steve knew by the sound that the other pit was being wet down, but it did not occur to him, either, that there was any danger in the operation. In fact, he was too busy shoveling the cinders from his own pit to give much attention to what was going on in the other.

Bob was humming softly to himself as he played with the stream, first sending it straight up into the air so that the spray covered a wide area by the time it reached the floor of the mill. No one chanced to get wet, however, save the two boys, Bob being the more so because he was right under the shower. Next he turned the stream straight into the pit, driving it down in one place, trying to bore a hole in the cinders and slag.

[52]

"Say, Steve!"

"What?"

"What do you think about——"

Puff!

A slender column of black smoke shot up from the centre of the pit that Jarvis was watering down. The lad stared at it in surprise.

"Look at the geyser!" he shouted.

Boom!

The ground under Bob Jarvis's feet rocked like a cradle. A great, black column rose from under his very feet, lifting him from the floor and hurling the boy straight up into the air.

CHAPTER V

[53]

ON THE BRINK OF A VOLCANO

REVERBERATING crashes rent the air. Workmen in that part of the mill were hurled violently to the ground. Yells and cries were heard on all sides. The interior of the mill was full of flying debris.

Bob Jarvis had put too much water on the pit. The sudden contraction, down deep among the hot slag and cinders, had caused a tremendous explosion, wreaking disaster for many feet on either side of the pit. Kalinski, in all probability, knew what would happen when he gave Jarvis permission to soak down the cinders, and no doubt that was why the boss made such haste to get away from the spot. If he were not there, he could not be held responsible for what had occurred.

Fire spouted from the miniature volcano. Crash after crash followed, as parts of furnaces close by toppled over, though fortunately the inside walls of the furnaces did not fall and liberate their tons of molten metal. Many lives would have been lost had that occurred. However, the disaster was serious enough as it was, and several men had been injured.

The red light was displayed at the top of the open-hearth building, but this time it was another than Steve Rush who was hurrying to the scene to gather the facts and give orders for the care of the injured.

[54]

Steve was near the bottom of number seven pit with cinders and slag raining down on him in a perfect deluge. The lad instinctively pulled his cap visor down over his eyes to keep the stuff from getting into his eyes or burning his face. He had no idea what had happened, beyond the fact that there had been some sort of explosion.

With quick presence of mind he grabbed up the plank, standing it against the side of the pit and began to climb. Quick as he was, he was not quick enough to get clear of the shower. It enveloped him; it choked and half smothered him as he fought manfully to gain the top of the pit.

"It's gripping me," thought the lad. "I'll have a time getting out of this now."

The stuff was up to his knees, Rush meantime kicking out vigorously, pulling himself up inch by inch by sheer strength of arms and hands. Had he not been such a muscular lad he would have been at the bottom of the pit at that moment, probably dead.

The cinders and slag gained the boy's waist. He was nearing the top, but now he could make little or no impression. He shouted for help, but in the confusion none heard his call. [55]

Steve kept struggling. He would never give up as long as there was a single breath left in him. Finally, however, he found that he was making absolutely no progress. The grip of the cinder and slag was getting tighter and tighter as the stuff was packed about him.

Suddenly through the pall of smoke and dirt a human face appeared, peering over into the pit. There was a bandage about the head of the man who was looking down into number seven.

"Is that you, Rush?" called a familiar voice.

"Ye-yes," answered the lad, scarcely above a whisper, for he was fast giving out. "Who—who are you? Help—help me out. I'm fa-fast and I—I'm burning u—"

"This is Ignatz Brodsky. Sure, I help you. Reach up your hands. You must make hurry. We both get buried alive in the hot stuff."

Steve stretched up his arms to the boy Ignatz, who had that morning come out of the hospital and gone to work in the mill where he was employed on a furnace a short distance down the line from where the Iron Boys worked.

Ignatz knew whose pit had blown up. He knew that Steve was in an adjoining one, because from where he was shoveling he had seen Rush go down into the cinder hole a little while before the explosion occurred. As for Bob Jarvis, he had not been seen since the black column had lifted him from the floor. [56]

Young Brodsky grasped the outstretched hands and began tugging with all his might. All his efforts were unavailing. Steve was being buried deeper and deeper every second.

"Hang on—I get somebody!" exclaimed Ignatz, darting away through the black cloud.

Kalinski, now running here and there, apparently very much upset over the disaster, was the first man the Pole met.

"Come quick!" he demanded, breathing hard.

"What do you want?" snarled Watski.

"The pit! There's a man in there and he can't get out!"

"Who is it?"

"Rush. He die pretty soon if we no get him out."

"Go on! Get him out yourself. I've got plenty on my hands. I'll help you when I can get to it. There are others here who need me. Go along, now, and get the crazy fool out," added the pit boss, turning away.

Ignatz did not seem surprised. He appeared more disappointed than otherwise. That one of his countrymen should be so heartless made no great impression on the boy. What he was concerned in now was finding some one who would help him get his young friend out of the pit. [57]

Brodsky ran here and there, with the result that he at last found two mill hands who hurried to the pit with him. It was no easy task, even for them, to get Steve out. The Iron Boy was still conscious, but he was quite seriously burned about the body. Fortunately he had saved his head and face from being very badly scarred.

After nearly pulling the boy's arms from his shoulders, working him from side to side as they would a post that they were trying to pull out of the ground, the men dragged him to safety.

"We take him to hospital," nodded Brodsky.

"Is the ambulance here?"

Ignatz nodded, whereupon the men carried Steve out and placed him in an ambulance. A second ambulance had just arrived, so the surgeon of that made a quick emergency dressing of the lad's burns, directing him to remain in the ambulance. Rush felt no inclination to do otherwise at that moment.

"Ignatz," he called.

"What is it?"

"I want you to find Bob."

"Where?"

"I don't know."

"Mebby Bob is killed." [58]

"Wait! Tell me what happened."

"The pit he blow up."

"What pit?"

"Number eight."

"Oh, that was the one Bob was sprinkling?"

"Yes. Put too much water on. Bang!" exclaimed Ignatz, striking a dramatic attitude.

"Then he is surely killed or badly injured. Run, Ignatz! Find him. Don't you come back here until you have."

"Ignatz find him," answered the Pole, darting back into the building, from which a dense cloud of smoke was rolling through the crevices in the roof and from the doors and windows.

No sooner had Brodsky left him than Steve pulled himself up and peered out. There was no one in sight, so he slipped from the ambulance. He was barely able to stand alone, and for a moment clung to a rear wheel of the wagon for support.

The boy's burns hurt him so that he winced. Every movement made him want to groan, but he shut his lips tightly together and by sheer force of will pulled himself up.

"I'm going in to look for Bob," he muttered, starting unsteadily for the door of the mill.

The smoke was still so thick that Rush could not make out much of anything. He staggered along until he reached the spot where the explosion had occurred. There he found the accident man gathering his facts. [59]

"Hello, Rush! You're hurt, aren't you?"

"Not much."

"Then you can tell me all about this. You were in it, weren't you?"

"I guess I was. But I can't tell you anything now. I'll tell you all I know later on. Have you seen Jarvis?"

"No; where is he?"

"That is what I want to find out. He was working on the pit that blew up."

"I guess he is settled then."

"I am afraid so."

"Well, we will hope not. I would help you look for him, but you know I've got my hands full," explained the man from the office.

"Yes; I understand. Hunt me up after you get through, and I will give you all the information I have, which isn't very much."

Rush started away. He came face to face with the surgeon who had dressed his wounds.

"What are you doing here, Rush?" demanded the surgeon. "You get back to the ambulance."

"I'm looking for Jarvis. You—you haven't found him, have you?"

"No. Is he hurt?" [60]

"I think so."

"That's too bad," muttered the ambulance surgeon, returning to his work of dressing the wounds of those who had been burned.

Rush went on, asking every one he met if they had seen Jarvis. No one had. Foley, Kalinski, all denied having seen the boy. Steve was perplexed. By this time the smoke cloud began to grow thinner and more transparent. One could see fully half way across the shop. As the cloud lifted, all became clear. The place looked as if it had been in the grip of a cyclone, though the damage was not nearly as great as had at first appeared.

"Who is killed?" asked Rush.

"No one, so far as I know," answered the man addressed.

"Have you seen Bob Jarvis anywhere about?"

"Don't know him. Who is he?"

"He was my partner. He was working on number eight when it blew up."

"Then you'll need a basket to gather him up," was the cheerful answer of the mill hand. "The last time a pit exploded here we lost twelve men. We found the pieces of them, but somehow we never were able to put them together. The pieces wouldn't fit, nohow." [61]

Steve turned away. The lad's face was drawn and white, partly from the pain of his burns and partly from anxiety for Jarvis.

"Ignatz!" he called, observing the Pole darting across to the furnaces.

The lad halted sharply and glanced around to see who was calling him. He caught Steve's eye and hurried over.

"Have you found Jarvis?"

Brodsky shook his head.

"Mister Bob not here," he said.

"He must be," protested Steve.

"Mebby Bob him run away," suggested the Pole.

"No, Ignatz; he is not that kind. He is here somewhere and something has happened to him or we should have seen him somewhere about. He was standing on the edge of the pit at the time it exploded."

"I see him a minute before. He put too much water on," added the boy, with a shake of the head. "Bad, bad! Somebody tell him do that."

Rush attached no especial significance to the suggestion at the moment. Later on, the words of the faithful Pole came back to him fraught with meaning.

"He must have been thrown up into the air. Perhaps he is down in the pit there buried under the slag now," said Rush, a sudden, startled expression flashing into his eyes. [62]

Brodsky instinctively glanced upwards.

"Look! Look!" cried the Pole, dancing up and down and pointing excitedly up above their heads into the thin cloud of smoke that hovered over them.

Steve looked. His heart sank within him as he did so and his head began to whirl dizzily.

CHAPTER VI

 [63]

BOB'S DIZZY FLIGHT

"**B**OB, him there! Bob, him there!" cried Ignatz. "See, see!"

On a girder, a huge steel truss some fifteen feet above their heads, and a little to one side of the centre, lay a limp figure, apparently ready to topple off at the slightest jar. The face of the figure up there was not visible, for it was flattened on the girder, while the arms and limbs hung over limp and motionless.

"It's Bob!" gasped the Iron Boy. "Help me, Ignatz! We must get him down."

Young Brodsky did not wait to consider the matter. He darted away, followed by Steve. To reach the figure on the girder the lads were obliged to climb the upright of a big automatic crane that was used for conveying heavy pieces of iron from one end of the building to the other. Ordinarily the boys would have been stopped, but in the excitement no one paid any heed to them as they shinned up the iron column, Steve in the lead, Brodsky so close behind him that now and then Rush's heels grazed the Pole's face.

Steve crept along the girder, using care not to cause it to vibrate any, lest he might be the means of shaking his companion down. [64]

At last he reached the spot where Jarvis lay.

Steve uttered a shout to attract the attention of those below. As they glanced up they comprehended at once. Jarvis had been blown to the girder by the pit explosion. From appearances the spectators believed him to be dead. Steve did not know whether such were the case or not. He realized the necessity for haste if it were not.

"Throw me a rope," shouted the lad.

"There ain't any ropes here. Throw him over," called a voice jeeringly. The boys on the girder recognized it as belonging to Kalinski.

"Somebody get a rope, I tell you!" thundered Rush.

One was brought, coiled and tossed up. The first time it went wide of the mark and Steve, holding to Bob's unconscious form, fuming with impatience, nearly lost his balance in trying to catch the rope. The next time he was more successful.

"Grab hold of the end, two or three of you down there," commanded the lad, letting an end of the rope drop to the ground. In the meantime he had made the other end fast around the waist of Bob Jarvis.

"Are you all ready down there?"

[65]

"Yes; let him come."

After a keen glance below, to make sure that the men would not let the boy drop, Steve gently pushed Bob over the edge of the beam. Jarvis's body spun around like a top several times as it was being lowered. Rush breathed a sigh of relief when he saw it safely deposited.

"Hold fast to the end of the rope. We're coming down," Rush shouted. Swinging himself over, he slid down, followed by Ignatz. The surgeon was already at work over Bob.

"Is—is he——"

"The boy is alive," answered the surgeon. "I don't know how long he will be. We must get him to the hospital at once. Here, carry this boy out!" he commanded. "Have the driver hurry in with him. I will go on the other wagon, as soon as I have dressed the wounds of this other man."

Steve started to follow the men who were carrying Bob out.

Kalinski grabbed Steve by the arm.

"See here, where you going?"

"To the hospital with my friend."

"Nothing of the sort. You're going to get to work, that's what you are going to do. You'll have lots of time to visit the hospital when you take your vacation."

Steve Rush hesitated. He wanted to be with Bob, but he knew he had no right to walk out and leave his work in this manner. It would be sufficient cause for his discharge were he to do so.

[66]

"Then I will ask you to let me off for the rest of the day."

"Didn't I tell you to go to work?" shouted Kalinski. "I'll have you fired for this day's work if it's the last thing I ever do."

Rush did not understand the full meaning of the words. He was troubled. Things were not going with the same smoothness that they had for the last two years. Steve was in an atmosphere different from that of the mines, or even of the lakes. He did not know just how to adjust himself to the conditions. Then, again, there was Bob in the hospital, perhaps dying.

"I must do my duty, and I'm going to do it," muttered the Iron Boy. "They shan't say that I am not to be depended upon. What do you want me to do, Mr. Kalinski?" he asked, turning to the pit boss.

"Now, what do you suppose I want you to do? What were you doing before you two blew up the mill?"

"In the first place we did not blow up the mill. I was working in pit seven when the other one exploded."

"Then git back in number seven, unless you want me to throw you in—or out of the mill altogether. I'll have you fired if the boss don't do it for me."

[67]

"I don't think you will fire me," answered Steve, bristling.

"I won't, eh?"

"No, you won't!"

"I'll either fire you out of the shop or else I'll break your head for you. Take your choice."

Steve surveyed the irate boss for a few seconds, then picking up his shovel walked slowly toward the pit in which he had had such a narrow escape from death.

Watski grinned sardonically.

"That's the time I took the wind out of his sails. I'll comb him down so fine he'll be sorry he ever got in my shift. It ought to be easy now. I've got both of them dead to rights. You bet I have!"

Rush was throwing out the cinders, raising a fine black dust that sifted over him like mist, except that in this case the mist was black. He toiled on steadily, scarcely taking a second for rest. The perspiration was rolling from his face and body. The temperature was high out doors and many degrees higher in the mill. Just back of Steve, so close that he could hurl a shovel of cinders against it, was a huge open-hearth furnace with a roaring temperature of three thousand degrees Fahrenheit inside of it. Beneath him was the hot bed of cinders and slag. Beyond him was a long row of red hot ingots, running metal and hot steam pipes.

[68]

"It isn't any wonder that I feel a little warm," smiled the boy, wiping the perspiration from his brow, at the same time taking quick note of his surroundings.

Traces of the accident were being rapidly removed. In a few moments no evidences of it would be left. The blown-up pit had been partially filled with slag that fell back after the explosion, and already a shoveler was at work throwing the stuff out. The pit must be made ready for the next cast, and the furnace was nearly ready for the cast.

Rush toiled until noon. He sat down to his lunch which he had brought with him, without opportunity to wash. The noon rest was to be for only twenty minutes, so there was no time to waste.

After finishing he walked to the door and gazed off toward the hospital, wondering how Bob was. Rush could see the roof of the hospital from the doorway, but that was scant comfort. He turned back, walking slowly toward his pit to take up the dreary afternoon's shoveling. Just as he reached the pit a light touch on his shoulder caused him to wheel sharply. [69]

There was the boy, Brodsky. He was breathing hard.

"Hello, Ignatz, you're all out of breath," exclaimed Steve.

"I been by the hospital."

"You have? Tell me, quickly, how is Bob?" demanded Rush, gripping the arm of the Polish boy.

"Him wake up."

"He is conscious, then? Good, good! Tell me how he is?"

"Him not dead. Him get well, by and by."

Steve's face lighted up happily.

"Ignatz, you are a good boy. Did you go without your lunch for the sake of going over to see how my friend is?"

Ignatz nodded, pleased at the pleasure of his friend.

"Doctor say Bob pretty much hard hit, but him get well."

"Go get your lunch, quick, before the whistle blows," ordered Steve.

Ere the words were fairly out of his mouth the shrill blast of the shop whistle sent all hands scurrying for their stations, Brodsky among the number.

"Look out! Trouble him come quick!" warned the Pole, whispering in Steve's ear just before he bounded away. [70]

"I wonder what he meant by that?" muttered Rush. "We surely have had trouble enough. I guess I'm a failure as a steel worker. But no! I'll beat it yet. I'll win out! They can't down me. I'll go through with it, and some of these fellows shall yet be taking orders from Steve Rush!"

CHAPTER VII

AN UNJUST SENTENCE

"**Y**OU are wanted in the superintendent's office!"

Steve looked up from the pit into the face of a messenger.

"Superintendent Keating, you mean?"

"No, Mr. McNaughton, superintendent of the open-hearth furnaces. He's the boss of this department," grinned the messenger.

"Will I have time to wash?"

"You'd better be coming along, if you know what's good for you."

"Very well, but I must first report to the pit boss."

"He isn't here. He knows where you are going."

"All right, I'll take your word for it. What does Mr. McNaughton want with me?"

"He'll tell you when you see him," answered the boy.

Steve thought that the summons had something to do with the explosion in the pit. He had no idea that he was to be involved in any way, so he walked confidently along with the messenger, out at the rear door and on to a low, rambling building just across the tracks from the open-hearth building. This was the office of Superintendent McNaughton. Steve did not remember to have seen this superintendent before. The messenger, after entering with Rush, opened a door leading into a large office, and shoved Steve in. [72]

A sandy-haired, rugged-faced man sat at a desk, while around the room were several men from the shops. Among them were Bill Foley and Watski Kalinski. The latter grinned when he saw Steve.

"What's your name?" demanded the man at the desk gruffly.

"Stephen Rush."

Steve's face was so coated with grime that it was unrecognizable, even to one who knew him

well, which the superintendent did not.

"A man named Jarvis is your side partner, isn't he?"

"Yes, sir. He is in the hospital now."

"Never mind about volunteering information, my man. I'll ask whatever questions I want answered."

"Very good, sir."

"Where were you when the explosion in number eight occurred?"

"I was shoveling in number seven."

"Did you see the explosion?"

"Not at first. I saw the latter part of it."

[73]

"What was the man Jarvis doing the last time you saw him?"

"Sprinkling the cinders in number eight."

"Humph! What did you tell the fool to do that for?"

"I tell him?" questioned Steve wonderingly.

"Yes."

"I did nothing of the sort."

"Didn't the pit boss warn both of you not to put water on the pit when it was hot?"

"He did not. I heard him utter some sort of a warning, but it was not definite enough for me to understand what he was getting at."

"Kalinski, what did you tell me about this man's having told his partner to hose down the pit?"

Watski rose, full of importance.

"One of the men told me he heard this fellow Rush tell the other man to turn the hose on and cool the blamed pile off quick."

"He *lies!*"

Steve uttered the words quietly but incisively.

"Silence!" thundered Mr. McNaughton. "I'll have you turned over to the Iron and Steel Police if I hear any more of your impudence."

"I had no intention of being impudent to you. I simply said the man lies, and I repeat it. He knows no such order was ever given by me, and he knows that no one told him any such thing," added Rush boldly.

[74]

Kalinski's face was a study. It turned from red to white in rapid succession. The boss's fists were tightly clenched and he seemed to be trying to regain his voice, which had suddenly deserted him.

"Sit down!" commanded the superintendent, projecting a finger at Kalinski. "Rush, you be careful that you do not go too far. I am not inclined to stand much of your impudence."

"Mr. McNaughton, am I to be accused of something I did not do, and then not be allowed to say anything in my defense?" demanded the boy.

"I will be the judge of what you did and did not do. Foley, you say several of the men saw these two talking together—Rush and Jarvis, just prior to the explosion."

"Yes, sir."

"And that the man Jarvis then went back to number eight and began playing the hose on it?"

"Yes, sir."

"Do you deny this, Rush?"

"I don't know—I don't remember whether we were in conversation just before the accident or not. I can't remember. I do not think we were, however."

"You will admit the accusation in a moment," snapped the superintendent. "You had been told that it was dangerous to put water on a hot pit——"

[75]

"I had not, sir, neither did I put water on a hot pit. I knew Jarvis was sprinkling number eight, but I did not know that such a thing was dangerous. How should I? It was my first day in the mills. I was just beginning my work there. But, sir, what is it you are trying to do with me? Are these two men trying to get me into trouble?"

"It begins to look as if you had gotten yourself in, without any of their assistance. Does any one

know how badly the man Jarvis has been injured?"

"I understand it is not serious," answered Steve.

"I shall have to discipline you both," began the superintendent.

"There can be no doubt," spoke up Foley, "that they were both to blame. It looked almost as though they did it maliciously, but that is hardly possible, as they were taking long chances. It was disobedience of orders, as plain as the nose on your face."

Kalinski nodded emphatically.

"I agree with you. Rush, what do you think we ought to do in a case like this?"

"Am I to speak as I think?"

"Certainly."

[76]

"You won't like what I am going to say."

"Then I will stop you if you say anything you ought not to."

"What I not only think but know ought to be done, is to kick the man Kalinski and the man Foley out of the place. I shouldn't ask them to go, I'd use my boot. Both men have lied. The truth is not in them, and some day you will find it out, even if you don't know it now."

The two bosses sprang to their feet, starting toward Steve, who stood eyeing them calmly, but in a belligerent attitude.

"I'd like nothing better than putting it over you two loafers. But, of course, you haven't the nerve to stand up one at a time and resent the imputation that you are liars."

"Stop!" thundered Mr. McNaughton.

"You told me to speak plainly. I am doing so, but I am telling the truth. Foley is angry with me because I told the truth and got him into trouble when I was in the accident department. He tried to get me to lie for him then. I knew, then, that he was more crooked than a steel rail coming through the rolls, and that's all I've got to say. I am glad to have put myself on record, and I'll take my medicine like a man, though the day will come when you will find that these men are rascals. The sooner you get rid of them the more certain will you be to avoid trouble. Good day ___"

[77]

"Hold on, sir! Not quite so fast!" commanded the superintendent of the open-hearth building. "I have something to say for myself. The evidence is against you two. You have convicted yourselves. I have perfect confidence in both Foley and Kalinski. They have been faithful employes for many years."

"Yes, sir?"

"It is natural that I should take their version in preference to that of a man of whom I know nothing, and who has been in the mills less than a day."

"Even if those men are rascals," interjected Rush. "I dislike to use the word, but it is the only word I know that fits the case. If you wish to know anything about the honesty of myself and my companion, I wish you would be good enough to speak to Superintendent Keating. He knows people who have known us for some time, and—"

"I am running this division, young man. I think I am able to judge between right and wrong."

"Very well; I have nothing further to say in my defense. What do you propose to do?"

"I am going to do the only thing that can be done under the circumstances, though I dislike to do it with one of you in the hospital—"

[78]

"Please do not let that interfere with your decision," urged Steve.

"I shall not. You are both discharged!"

"What?"

"You're discharged! Leave the mills at once, handing in your time at the gate as you go out. I will advise the paymaster to hand you your money to-day, so you will not have to hang around until pay-day."

"Thank you. You are very considerate, indeed," answered the Iron Boy, sarcastically. "I bid you good afternoon. I hope some day you will discover that you did two boys a very great injustice. As for you," announced Steve in a firm tone, stepping over to where the two bosses sat grinning, "if you will come outside with me it will give me great pleasure to punch both your heads. But you don't dare! You'd call the police and have me arrested before I had gone one round with you. Good afternoon, Mr. McNaughton."

Steve strode from the office with head up. A dull flush showed under the soot on his face. He had met with his first real rebuff. He did not mind that so much as he did the fact that he had suffered through the untruthfulness of others. Rush knew that neither he nor his companion were in any way to blame for what bad happened. Neither of them knew that it was dangerous to sprinkle a

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cinder pit. Foley and Kalinski did know it and they had deliberately turned away when they saw Jarvis getting ready to wet down number eight.

"I'll not give up!" muttered Steve as he walked swiftly from the yards. As he passed the gate the gateman called to him to leave his number.

"I have no number," answered the lad. "I don't work here any more."

"You won't get your money if you don't hand in your time."

"I don't want any money that I haven't earned. I tell you I am not working here."

"I guess the boy must have been fired," grinned the gatekeeper, who knew that Steve had been working in the mills up to that time.

In the meantime Steve Rush was hurrying toward the hospital to see how Bob Jarvis was getting along.

CHAPTER VIII

[80]

IGNATZ ON THE WAR PATH

STEVE found his companion sitting up in a chair, with head and hands bandaged. Bob had been quite severely burned, and he had suffered from the shock of the explosion. The surgeon said it was a miracle that he had not been killed instantly.

"Hello, Steve," greeted Bob. "I can't grin without hurting myself, but I'm grinning on the inside of me."

"Oh, Bob, I'm so glad you are safe! I thought you had been killed when I found you were missing. What happened to you? Tell me all about it. I haven't heard the truth about it yet."

"There isn't much to tell, except that I was a bird. I flew without wings, and that is more than any one else can do. Did you see me go?"

"No, I did not, but some other persons did."

"Eh, what do you mean?"

"Foley and Kalinski."

Jarvis looked thoughtful.

"Say, that's what that fellow meant when he warned me. Why didn't he say what he was warning me about? Look here, he knew I was going to get into trouble, didn't he?"

"I have more than a suspicion that he did," nodded Rush.

[81]

"Wait till I get out of this harness," growled Bob. "What happened to you?"

"Nothing much. I was nearly buried under the cinders, but Brodsky ran for some men, who dug me out. If it hadn't been for Ignatz I believe I should have perished in number seven pit."

"He's a good fellow!" muttered Bob, nodding his head faintly. "He doesn't know much, and he wouldn't take a blue ribbon at a beauty show, but he's got the real stuff in him. I hear one man is going to die."

"Yes; so I understand. Too bad, poor fellow."

"And I did it!"

"Don't blame yourself. You were not to blame for what happened. You were led directly into the mistake of putting too much water on the cinders. When is the doctor going to let you go home?"

"He said perhaps I could go in the morning, but I'm all right. I could go home now, just as well as not. I want to go back to the mill and go to work in the morning."

"No need of that. I don't think either of us will start in to-morrow."

"What? Not start in? What do you mean?"

"Never mind now. We will talk about it when you get home."

[82]

"Look here, Steve Rush, something has been going on that I don't know anything about. What is it?"

"Don't bother about asking questions. I shouldn't have excited your curiosity," answered Steve, laughing to cover his chagrin at having let the words slip out. "I'll tell you what we'll do; we will take our lunches and go down the river to-morrow for a picnic, if you are able. After you have rested up for a day perhaps you will feel able to go to work."

"But you said we weren't going to work."

"Did I?"

"You did, and I want to know why. Come on now; I'm no tenderfoot, and you know it. Why don't we go to work?"

"Because we have both been discharged. There, you have it, now."

"Fired?"

"Yes."

"What for?"

"You ought to be able to guess."

"I'm not much of a guesser."

"Well, then, because we blew up the pit."

Bob gazed at his companion unbelievably.

"Come now, you're joking. They're not all fools down at the mill. I blew up the pit—you didn't, and I didn't know that I was doing so, of course. I'm no anarchist, and neither are you." [83]

"Nevertheless, they hold us responsible for it."

"I know who's at the bottom of this. It's that wooden Indian, Kalinski, and—and——"

"Foley," added Steve.

"Yes, they're a choice pair. They have had a rod in pickle for both of us ever since you made the report on Foley at the time of that burning accident. Did *they* fire us?"

"No, not directly. Mr. McNaughton did so, but they were at the bottom of it. They told him lies about us, and he believed them. Think of it, Bob. He wouldn't believe what I told him. He thought I was the one who was telling the untruths."

"Tell me all about it."

Rush did so, relating all that had occurred during his visit to the division superintendent's office, the injured boy listening with darkening face as the narration continued. He nodded approvingly when Steve related how he had invited the two men out to get their heads punched.

"Didn't go, did they?"

"No."

"I thought not. They've both got a streak of yellow in them that runs all the way from their heads down into their boot-tops. Wait till I get out! I've got a couple of good, swift punches in stock for them! They won't wake up for half an hour, once I unlimber," threatened Jarvis, shaking his bandaged fists threateningly. [84]

"Bob, promise me one thing. Promise me that you will not have any trouble with those men. We can't afford to mix up in any disgraceful fights here. They would like nothing better than to have us do so. We should be arrested. Think of the disgrace of it! We will let them alone as long as they let us alone. We won't stir up any more trouble, but they must let us alone. Will you promise to be guided by me in this matter?"

"I don't know. I am afraid I shall lose my temper when I see them; then, if they say anything to me, it's all off. What are we going to do, now that we are out of a job?"

"I don't know," answered Steve thoughtfully.

"I'll tell you what let's do. Let's go back to the mines. We have fine jobs with good pay waiting for us there. We never should have left. Mr. Carrhart will be glad to have us."

Rush shook his head.

"We came down here to learn the iron and steel business, and we are going to do exactly that one thing."

"Will you tell me how?" [85]

"There are other mills. We will try to get in one of them. I am going to start out to-morrow to look for work."

"I thought we were going on a picnic to-morrow," grinned Jarvis.

"Yes, that's so. Well, then, the day after to-morrow will be time enough for us to look for another place. Fortunately we are not broke. We have enough money in the bank to keep us for a long time, but that isn't the question. The question is whether or not we are going to get a job."

"I hope we don't. I'd much rather be underground, digging ore or bouncing about on the Great Lakes."

"You did not like the Lakes any better, when you first went out on them. Let's not confess that we are weak-kneed."

"No; but I've got a burned knee and it smarts," retorted Bob.

"So have I," laughed Steve. "I am behind you, though. You aviated yourself up to the roof, while I got buried in the pit. That was the time both ends did not meet. Well, I'm going home to clean up and dress. I will come back later, and, if the doctors will permit you to leave the hospital to-night, I will take you with me."

"I'll go, whether they let me, or not," said Bob. "What's the use in hanging around here? If I'd broken my stanchions, or smashed in some of my plates, then things would be different. But I am all right. Never felt better in my life, except for the burns." [86]

Bidding his companion good-bye, Steve left the hospital and went home. His face was serious and thoughtful. On the way he stopped at the Brodskys, leaving word that he would like to have Ignatz come and see him that evening.

"Discharged!" muttered the Iron Boy. "Well, who would have thought it? I might go and see Mr. Keating—but no, I'll not play the baby act and squeal. I'll show McNaughton and his bosses that I don't ask any odds of their old mills. Yet I *did* want to stay with the company. Well, we shall see what luck I have when I get ready to look around a bit."

Later in the day Rush returned to the hospital. Jarvis was permitted to go with Steve, with the understanding that the injured boy return on the following morning to have his burns dressed. Then the two went home. Jarvis was weak and staggered a little, but he would not let Rush take his arm. He laughed at the suggestion. When they got home they found Ignatz at their boarding house. The Polish boy was delighted to see them.

"Bob, if it hadn't been for Ignatz, we should have been in a worse mess than we are. He's one of the white men in this smoky part of the country." [87]

"I'll shake with you when my hands get well," laughed Jarvis. "I can't even shake my head now. I couldn't shake if I had an attack of chills."

"I suppose you know that we have lost our positions, don't you, Ignatz?" asked Steve.

Brodsky nodded moodily.

"I hear men say you no work in open-hearth place any more."

"Well, it does look as if we shouldn't."

"Why?"

"I'll tell you all about it." Rush told the story fully, and without reserve, to their faithful friend, Brodsky listening attentively with emotionless face.

"Huh!" he grunted after the recital had come to an end. "Watski say you blow up pit?"

"Yes."

"Huh! Watski much liar! Foley, him liar, too. All liars. You see superintendent?"

"We saw Superintendent McNaughton. It was he who sent for us and discharged us."

"No, I mean Superintendent Keating?"

"No, Ignatz; we can't go to him with our troubles. That would be too much like whining, and we are not the kind of boys who go about crying because we have been whipped." [88]

"You lick Kalinski?"

"To tell the truth, nothing would give me greater pleasure. But we are not going to do anything of the sort—that is, if he keeps away and lets us alone."

"I'd like to catch him on the hot metal bridge some fine night when there wasn't anybody near," growled Bob, shaking his padded fist.

"What I sent for you for, Ignatz, was to ask you about some of the other mills. I have not been here long enough to know about them. Will you tell me what the other mills are, and whom to see? I am going to try to get a job."

Brodsky named the independent mills. There were ten of them in all. He knew the names of some of the foremen, and said he would get the names that he did not know.

"You want me more?" demanded the Pole, rising abruptly.

"No, but we should like to have you spend the evening with us, if you have no other place to go," said Steve.

Brodsky shook his head.

"Must go home split the wood for my mother. She take a club to me if I don't. I see you bimeby, mebbly to-night, mebbly the day after to-morrow."

The boy turned and left the room at a trot. Bob laughed heartily after he had gone. [89]

"There's an odd lad," he said.

"He's true-blue, Bob. Under all his stolidness he is every inch a man, as I have said many times before. He is more cut up over our hard luck than we are. I hope he doesn't try to induce Kalinski to take us back. That would please the pit boss, because he would think we had asked Ignatz to intercede for us. I would rather never have a job again than to ask either of those three men to take us back."

"I wonder what the general superintendent will say when he hears about it?" asked Jarvis.

"He will not be likely to hear of it at all, unless some time he happens to think about us and asks. Even then he will be given the same story that Foley and Kalinski told Mr. McNaughton. I hope he doesn't hear it, for then our friends at the mines will learn the same story, and we shall be disgraced in their eyes."

"No, we won't! I'll see to it that we are not."

"I think we had better postpone our picnic to-morrow, seeing that you have to go to the hospital to have your burns dressed. That will give me an opportunity to visit some of the other mills, and I'll wager I'll come back with a job for both of us in my pocket to-morrow night."

"All right; I don't care. I'm getting so that everything goes and nothing matters at all. I'm getting to be an old man—a feeble old man, Steve Rush," said Bob, in all seriousness. [90]

Rush laughed heartily.

In the meantime Ignatz Brodsky had left the house. Strangely enough he appeared to have forgotten his promise to go home and split wood for his mother, the widow Brodsky. Instead, he started in the opposite direction. Ignatz was nodding to mill men whom he knew, now and then halting to speak to one, asking a question of another, but keeping on his way.

All at once his stolid face melted into a smile so soft and pleasing that no one would have thought him incapable of feeling. The object that had brought the smile to the face of the Polish boy, however, was none other than Watski Kalinski swinging down the street. Ignatz pretended not to see the pit boss. As they were passing Brodsky lurched against the boss.

"What for you bump me?" demanded the lad, in an angry tone.

"Git out of the way before I hit you!" growled Kalinski.

"What for you run against me?"

"I didn't. You run into me. You're a *li*—"

Whack! [91]

Ignatz was a stocky boy, even though he was only seventeen years old. He had been used to heavy work all his life; in fact, he had had little schooling, having had to earn his living since he was ten years old, at which time his father had been killed in the mills, leaving Mrs. Brodsky with a brood of young Brodskys, of whom Ignatz was next to the eldest. It therefore devolved on him to share a good part of the burdens of the home, the elder brother, Paul, having a wife of his own to care for.

When Ignatz let go his fist the other man was caught wholly off his guard. He had no time to raise his own fists in defense, though he was just preparing to administer a kick to the boy who had involved him in an argument.

Kalinski struck the ground sideways. The pit boss was on his feet in a few seconds, uttering a roar of rage. Ignatz calmly knocked him down again, this time the blood spurting from the boss's nose in a tiny crimson stream.

The next time Watski came up there was blood in his eyes, as well as on his face and nose. Ignatz knew full well that, unless he turned and ran, the tables would be quickly turned on him, for on equal ground he was no match for the brawny pit boss.

"You loafer! You—"

Watski made a rush for the boy, which Ignatz dodged clumsily, hitting Kalinski in the side as the latter passed him.

"All liars!" taunted Brodsky.

Kalinski wheeled sharply. Brodsky was off his balance, but his fists were up ready to defend himself. Yet he was not prepared for the tactics adopted by the unscrupulous pit boss.

Watski suddenly let go a vicious kick. It caught Ignatz in the abdomen, doubling the boy up and sending him moaning to the ground, after which Watski started away on the run. [92]

CHAPTER IX

STEVE MEETS WITH DISAPPOINTMENT [93]

EARLY on the following morning Steve Rush started out with a list of the other mills in that vicinity, first having called at the Brodskys to get the names of the other foremen that Ignatz had promised to procure for him.

Ignatz was not at home. He had not been home all night and Mrs. Brodsky was greatly worried. So was Steve. He knew that the boy had intended to go directly home and help his mother.

"I'll tell you what I will do. I will see if I can find him. I was going on some matters of my own, but they can wait."

Mrs. Brodsky was profuse in her thanks as Steve started away to look for the missing boy. Outside, the Iron Boy halted, wondering where he should look. It was quite possible that Ignatz had gone to the mills to work, and in that case Rush would not be able to see him, for the Iron Boy would not be allowed to enter the yards unless he did so secretly, for the guard would stop him now that his name was not on the list of employés.

Steve thought of the hospital. He hurried there at once. The lad knew all the surgeons and nurses, having become well acquainted with them while he was in the accident department. [94]

"Have you seen anything of a boy named Ignatz Brodsky?" was his first question on meeting one of the ambulance surgeons.

"Brodsky? Brodsky? Seems to me that was the name of the young fellow I picked up in the street last night."

"Yes; that was the name," remarked one of the young doctors present.

"Oh, that's too bad. Was he hurt?"

"Yes, he was unconscious when we brought him here in the ambulance, but——"

"What was the matter—had he been hurt?" questioned Rush excitedly.

"Yes, he had been——"

"How?"

"When he woke up he said he had been kicked by a horse."

"May I see him?"

"He isn't here. He insisted on going to the mills to work this morning. We thought, at first, that he had been injured internally, but I guess he didn't get a very bad kick, or he surely would not be going to work to-day."

"Thank you very much. His mother was anxious about him. I will go and tell her that he is all right now," announced Steve, hurrying from the company's hospital. [95]

Rush trotted along and soon reached the Brodsky home, where he conveyed the news to Mrs. Brodsky. At first she thought the boy was deceiving her and that Ignatz had been really seriously hurt even if he were not already dead. The woman set up a wail of grief. Steve did not know what else to do, so he grabbed her by the shoulder and shook her.

The shaking evidently had the desired effect, for Mrs. Brodsky ceased her wailings and began to berate and threaten Ignatz, making promises of what she would do to him when he got home that night.

Steve argued with her, trying to explain that Ignatz surely could not be to blame. He had been kicked by a horse while on his way home to help his mother. After a time the Iron Boy left the widow in a much pleasanter frame of mind. She even smiled at him as he shook hands with her and told her what a good boy Ignatz was and how good he had been to the Iron Boys.

Steve went away smiling, but he became thoughtful as he walked briskly on. He could not understand how it was that Ignatz had been picked up at the place where the doctor said he had found the boy. Surely he was not on his way home, or he could not have been at that point. Steve was a shrewd boy and he began to reason the thing out. He found himself unable to get beyond the finding of the Polish boy, so he gave up wondering, though he suspected there was something more to the affair than he knew about. [96]

Rush boarded a car and started for the Lincoln Iron Works, the nearest shops to where he then was.

"It is a good, patriotic name," he mused. "Surely I ought to be able to get a job there, if there is anything in a name."

Reaching the mills he learned the name of the superintendent from the gate-keeper, and thus armed went directly to the office and asked to see the superintendent. He was requested to state his business, which he did frankly. The word was soon brought back to him that no men were needed.

"May I not speak to the superintendent myself?" he asked.

"No; he has no time to give you," was the answer from the superintendent's secretary.

Rush left the office with a keen sense of disappointment. He decided to try the Republic mills next. To reach them he took a short cut over the hill, finally arriving at the Republic mills four miles away, hot and tired. There he was fortunate enough to catch the superintendent, who was pointed out to him as he entered the corridor of the offices. [97]

Rush said he was looking for a place for himself and his companion. The superintendent looked the boy over critically, discovering at once that Rush was no ordinary laborer.

"Have you ever worked in the mills?" asked the executive.

"Yes, sir; a short time."

"Where?"

"In the corporation's mills."

"What did you do there?"

"I was first in the accident department, investigating accidents, and so was my friend. From that we went into the mills to work. We made the change from choice, so that we could learn the business."

"In what department?"

"We started in the cinder pits, sir."

"Hm-m! How long did you work in the pits?"

"Not quite a day," answered the Iron Boy, flushing.

"Oh! What happened to you then?"

"We were discharged."

"For what reason?"

"Because an untruthful pit boss accused us of blowing up a cinder pit, either through carelessness or with design," answered Rush truthfully. "There was not a word of truth in it. If you will give us a place we will show you that we are all right, and can be trusted to do our work quickly and well." [98]

"So you tried to blow up the mill in order to learn the steel business, eh? And now you want us to give you a chance to learn at our expense?"

"Not at your expense; no, sir."

"Bring me a letter from your employer verifying what you say and I will see what we can do for you."

"I wouldn't care to ask it," replied the boy promptly.

"Nor would I care to take you, under the circumstances," answered the superintendent, with equal promptness. "Good day. I have no time to waste."

The executive hurried out of the office on his way to the mills, leaving Steve standing there with flushed face, uncertain just how he ought to proceed.

Some of the men standing about were grinning at the boy's discomfiture. Rush turned on his heel and left the office, fearing to trust himself, for fear he might say something unpleasant. He walked proudly away, not stopping until he was well out of the mill settlement. Then he sat down on a rock and thought matters over. This getting a job, after one had been discharged, was not the simple matter that he had thought it. The situation was getting serious. [99]

"But there are others. Surely, I shall be able to find something to do in one of the mills."

Rush studied his list, and decided to visit the Grey works next. That meant a tramp, unless he wanted to wait nearly two hours for a steam train to take him around the base of the mountains, so he set out on foot again, for a straightaway five-mile tramp.

It was late in the afternoon when Steve reached the place. He learned that the superintendent was out of town. The assistant superintendent was in the mills, so the boy sat down to wait for him. Hours passed, but still the Iron Boy sat reading a paper that he had found.

Shortly after five o'clock in the afternoon the assistant entered the office. The mills were closing then; that is, the day shift was coming off and the assistant was in a hurry to get home.

Steve caught him before he got into his private office and stated his business.

Very much the same conversation ensued as had been the case at the Republic mills, save that the questions were shot at him at rapid-fire rate. He answered them fully as promptly, so that but a few minutes were consumed in the conversation.

"We have no place for you," answered the assistant. "You may be telling the truth, and you may not. I haven't the time to inquire whether you are or not. Go back and tell your story to your own superintendent, and if you are any good he will put you to work again. That's all." [100]

Once more Rush walked from a mill office beaten, although he did not realize his defeat. He was tired, though not out of the race yet. He did not even consider the advisability of taking a train back to Steelburgh. Instead he started out bravely at a swinging gait. A few miles more or less was nothing to this strong-limbed, athletic lad.

It was after dark when Rush, covered with dust, grimy and tired, swung into the village and strode to their boarding place.

Jarvis was waiting for him anxiously.

"Well, thank goodness you are back!" said Bob, with evident relief. "I thought something had happened to you."

"What's new?" interrupted Rush.

"Nothing. Oh, by the way, Ignatz has been here."

"He has, eh?"

"Yes."

"What did he say?"

"Nothing much, but he looked as I imagine the last rose of summer did when the cool nights came along in the fall," laughed Bob. [101]

"Is he all right?"

"No; I told you he didn't look very scrumptious."

"Did he say what happened to him last night?"

"Yes, said he got kicked by a horse. But, Steve, I guess that horse story will bear looking into," laughed Jarvis.

"That is what I was thinking. Had he been in a fight?"

"I shouldn't be surprised. His face didn't show it, but he looked pretty seedy. How many jobs did you get to-day?"

"None," answered Rush rather dolefully.

"Why not?"

"They didn't want us, Bob; that is, not without a recommendation from our last employer."

"Meaning the Honorable Mr. Watski Kalinski?"

"Exactly," answered Rush dryly.

"I should enjoy reading the recommendation that Watski would give us. It wouldn't be worth much, would it, now?"

"I guess not," agreed Steve thoughtfully. "Is Ignatz coming in this evening?"

"He said he might, though he had to go down town on business, but he wouldn't say what."

"That rascal is up to something, Bob," said Steve, with emphasis. [102]

"He surely is."

"And I have an idea it has to do with us in some manner. I hope he doesn't mix in this affair. He will only get himself into trouble and make it harder for us. If you see him first, tell him so. If I see him I will give him a talking to. He is a faithful friend, old chap."

"He is. Reminds me of a dog I had once. The more you kicked him, the more he loved you, and he had sharp teeth, too. So has Brodsky. Say, you don't suppose he got into a mix-up on our account, do you?"

"He may have."

"But tell me about your experience to-day?"

Rush did so, his friend listening attentively until the story came to an end. Jarvis nodded reflectively.

"I guess it is the mines for us, as they say in Russia. What do you propose to do?"

"The same thing. I am going to keep at it until I get a job for us, if I have to tramp up and down the valley all the rest of the summer. It will take more than one Kalinski to make us change our plans, Bob. Are you with me?"

"Up to my neck!" replied Bob earnestly.

"That's the way I like to have you talk even if it is a little slangy."

CHAPTER X

SOMETHING HAPPENS TO THE BOSS

THE next day was a repetition of the previous one so far as Steve's finding a position was concerned. At every place he was met by one of two answers. Either they were not in need of any extra men, or else they wished a letter from the corporation mills, giving the facts of the discharge of the Iron Boys.

Rush was beginning to think hard. He had discovered that getting on in the world was not all smooth sailing; still he was not disheartened.

In the meantime Ignatz Brodsky had not been idle. He had gone to his work and had stood the abuse of Foley, and occasionally that of Kalinski, though not in the latter's department, without making any retorts. Ignatz's face was stolid and emotionless.

That evening, however, having recovered from the kick he had received, he went out first in search of Superintendent Keating. The general superintendent, he learned, was in New York, and might return the next day or he might not.

Disappointed, but still stolid, Ignatz betook himself over much the same route that he had followed the night before. He did not meet Kalinski, however, and after a while went home to supper. Shortly after finishing his meal he left the house. The widow Brodsky thought he was going over to see the Iron Boys. Ignatz had no such intention. He kept walking up and down the streets, keeping a sharp lookout. At last his search was rewarded. He espied Kalinski standing on a street corner, talking with another man. [104]

The Polish boy smiled again and started slowly toward Kalinski. But this time Kalinski saw him coming. The brow of the pit boss wrinkled, though he did not for a moment think the boy would dare come near him after the experiences of the previous night.

Ignatz kept on coming, just the same, though he was not looking at the boss; rather were his glances fixed reflectively on the pavement. The boy came to a halt right in front of Kalinski and looked up with an innocent expression on his face.

"Well, what do you want? Looking for more trouble? Git out of this before I lose my temper and do something to you."

"All liars!" announced Ignatz, with the same calmness as before.

"What!" fairly howled the boss. "You little yaller dog, I'll beat the daylight out of you. What do you want here?" [105]

"This!" answered the Polish boy, smiting the boss a terrific blow on the nose. It was the same nose and the same spot on the nose that had felt the fist of Ignatz once before.

Kalinski staggered back under the force of the blow, howling with rage and pain. Ere Brodsky could follow up the advantage thus gained the boss was upon him.

No one interfered, for Kalinski was a bad man when enraged and bystanders knew he would brook no interference. When finally he backed away Ignatz's face was a sorry sight. The pit boss had given the boy a brutal beating.

"All, all liars!" he gasped, then turned and staggered off toward home. But not a word could the widow Brodsky obtain from him as to the cause of the disfigurement. Next day Ignatz was not seen at the mill. He remained at home, moulding his face back into the semblance of its former self.

Steve was late that night, as before, but he had fared a little better. He had found a job in a mill for himself and Bob. It was not much of a job—merely carrying water for the men in the tube mill at fifty cents a day.

The Iron Boy did not agree to accept the proffered employment, but said that in case he found nothing better he would report for duty on the following Monday morning if this would be satisfactory. It was, and so the matter was left. [106]

Jarvis was out on the street again. The bandages were off his hands, but he still wore one over the upper part of his face. The lad had gone out, hoping to meet Steve and walk home with him. All at once Jarvis discovered Brodsky walking ahead of him. As usual the Pole was looking about him keenly.

"He is hunting for some one," muttered Bob. "I think I will see what the little rascal is up to. I'll bet he's up to some mischief."

Ignatz led Jarvis quite a chase, and it was nearly nine o'clock when the Pole halted. Kalinski was just coming out of the post-office. The boss stopped short when he saw Brodsky, and Brodsky stopped short as he caught sight of the pit boss.

"Hello! I begin to smell a rat," chuckled Bob. "I wonder what he and the boss can have in common?"

Jarvis edged up a little closer. Brodsky and the pit boss were slowly approaching each other. Bob

was almost trembling with excitement. The very air vibrated with trouble.

"I actually believe that little runt is going to pick a fight with the big fellow. Well, of all the nerve I ever heard of! Why, Kalinski will eat him alive." [107]

Bob waited to see what would happen.

"All liars!" howled Brodsky, both feet leaving the ground as he leaped straight at the boss. Kalinski's fist grazed the Polish boy's cheek, and the lad, with a quickness that would not have been thought of him, planted his own fist in the face of Kalinski.

There followed a quick exchange of blows, Brodsky fighting in close with dogged determination. Every time he landed a blow the boy would shout, "All liars!"

This seemed to enrage Kalinski more than anything else, and led him to renewed efforts to down his antagonist. It could end but one way. Bob Jarvis saw that as he stood clenching and unclenching his hands, muttering to himself: "It's a fair fight; you can't interfere. It's a fair fight; you can't interfere!"

The Iron Boy was doing his best to keep out of it, but he wished from the bottom of his heart that Kalinski would turn on him, thus giving Bob an excuse to even up old scores.

A big crowd had gathered and was urging on the combatants, jeering, shouting in a chorus of discordant yells. Suddenly Ignatz Brodsky toppled over backwards, his arms waving feebly as he fell. He struck the ground heavily and lay there moaning. [108]

With a shout of triumphant rage Kalinski sprang forward and began kicking the prostrate boy with his heavy boots. The pit boss was beside himself with rage, for Brodsky had goaded him to the point of desperation. The crowd apparently had no inclination to interfere with this brutal act, for they continued their shouting and jeering.

There was one, however, who did propose to interfere. Such a scene was more than Bob Jarvis could witness without taking a hand.

With a roar he hurled himself into the centre of the circle that had been formed about the combatants. A firm hand was laid on the arm of the boss, and ere he knew what was occurring he was thrown flat on his face in the dirty street.

The crowd was not exactly sure whether it approved of this or not, and, deciding that it did not, began to hiss.

"He's a coward!" shouted Bob. "He, a full-grown man, to thrash a boy, then kick him after he is down! I am surprised that you loafers could stand here and see it done without offering to interfere."

"Look out! He's coming for you!" warned a friendly voice.

But Jarvis did not need the warning. He had been watching the boss narrowly while scoring the crowd, and he was ready for the next move. As a matter of fact Bob did not believe Kalinski would fight him. In this he was wrong, for the Pole's rage blinded his better judgment. His brutal instincts were in full control. Kalinski was on his feet almost instantly, and with a yell of rage he rushed the Iron Boy. [109]

Jarvis stepped nimbly to one side, tripped the man and once more threw him on his face.

The crowd jeered. This wasn't fighting. They wanted to see blood flow. Their desires were soon gratified, for no sooner had Kalinski jumped to his feet again, and made a vicious swing at Jarvis, than the boss received a stinging blow on his sore nose from Bob's right, and another on his right eye from Bob's left fist.

After that it was give-and-take. Neither man gave ground in the slightest, but it was plain that, while possessed of great muscular force, the Pole lacked the science of the Iron Boy. When the former did land it jarred Bob Jarvis from head to feet, sometimes sending him staggering backward, gasping for breath.

But Jarvis was full of pluck. Brodsky, at this juncture, got unsteadily to his feet and elbowed his way into the circle about the combatants.

"All liars!" he cried, whereat the crowd picked him up bodily and threw him out over the heads of those at the rear. [110]

By this time Kalinski was getting slower in his movements, and the strong fists of the Iron Boy were beating a tattoo on the pit boss's face and ribs. The crowd, seeing that Kalinski was getting the worst of it, set up yells of disapproval.

"Throw him out! Put him in the river!"

With one common purpose the idlers surged forward. At that moment some one began pushing and elbowing through the crowd. Then Steve Rush strode into the ring where the man and the boy were battling for a finish.

Steve had been on his way home from his day's tramp in search of a position when the shouts of the crowd attracted his attention. He hurried on to learn what was going on. His surprise was

great when he saw the bandaged head of Bob Jarvis bobbing up and down in the centre of the ring.

"Bob's at it again!" groaned Steve. "Will he ever learn to keep out of trouble?"

Steve quickly noted the sinister attitude of the crowd. He knew that in a moment they would fall upon Jarvis, and it was a foregone conclusion that the lad would be roughly handled. Perhaps both boys would be roughly treated, but this did not deter Rush from springing to the rescue of his companion. [111]

"Stand back!" Steve shouted, as he leaped into the narrowing space about the fighters. "Stand back, every one of you. It's a fair fight. Let them have it out. I don't know what it is all about, but I know nobody is going to interfere unless he wants to fight me!"

"Throw him out!" howled a voice. The cry was quickly taken up by other voices. Steve Rush was now the object of their disapproval.

"Men, I tell you to stand back! It will be the worse for you if you don't."

Uttering a yell the idlers rushed the plucky Steve.

CHAPTER XI

 [112]

READJUSTING THEIR FINANCES

"POLICE! Police!" yelled a voice on the outer edge of the circle.

"Police!" echoed the crowd, running in all directions, for these foreigners held the officers of the law in wholesome awe. They had had experience with the uniformed police on other occasions.

Kalinski did not run, for the very good reason that he could not. Bob was following him up too closely. Neither did Steve Rush nor Ignatz Brodsky attempt to run away. It had been Ignatz's voice that had called out the warning. There were no police in sight, but the boy, with quick wit, had cried out in order to save Steve from the wrath of the mob.

Rush, as he shot a keen glance at the grinning face of Ignatz, quickly comprehended.

"That's enough, Bob. Let him go. You are even with him. Come on now—stop it!"

"All right, in a min—minute——" thump!

"That's for the boy Ignatz, and"—thump—"that for Rush, and"—Bob uttered a grunt as he launched a terrific blow at his adversary, "that's for me!"

The blow lifted Kalinski off his feet, laying him flat on his back in the gutter. [113]

"Back off!" commanded Steve, in a voice of authority. "You have done your duty as you saw it, and I guess a little more."

"Liar! Liar!" shrieked the Polish boy, hopping about the fallen man, waving his arms, almost beside himself with unholy joy.

"Take this boy away!" commanded Rush, as he bent over and assisted Kalinski to his feet. "I'm sorry, Kalinski, but I guess you got what you deserved. Bob, how did this thing start?"

"In the first place Kalinski was fighting with Ignatz——"

"He—he started it, the——" interrupted Kalinski.

"Don't say anything you will be sorry for," interjected Steve.

"After he had knocked Brodsky down he began kicking the boy, and with the entire approval of the crowd," added Jarvis. "Wouldn't you have sailed into him if you had been in my place?"

"I should have been a coward if I had not. And now, Kalinski, I have a few words to say to you. You have used us about as shabbily as one person could use another. We are even now; you have got what you deserve, but hereafter keep away from us. Don't you dare speak to either of us. Try any tricks and it will be the worse for you. Now get out of here!" [114]

Steve gave the Pole a shove, Kalinski hurrying away as fast as his weakened legs would carry him, the fellow uttering threats and shaking his fists as he went.

"We will go home now," announced Steve. "You come with us, Ignatz," he added, taking an arm of the Polish boy. "I am sorry this thing happened, for I had hoped we should be able to keep out of further trouble. We will get a bad name if we don't stop having so many rows."

"But how are we going to help it?" protested Bob. "I can't stand around and see a boy abused by a big brute like Kalinski, without taking a hand."

"You did right, but I am sorry it occurred; that's all."

Reaching their boarding place, Rush took Bob and Ignatz to his room. He looked Jarvis over from

head to feet. The bandage about the latter's head was now stained a dark red, where the fists of the pit boss had pummeled him, while the burns on the lad's hands, that had been healed over, were now raw and painful. Rush quickly bathed and redressed his companion's wounds, then turned his attention to Brodsky. The latter had received some pretty hard knocks, and was also in need of treatment, which Steve gave him at once.

[115]

None of them had any thought for supper, which, in fact, had long since been finished in the dining room of the boarding house. Rush looked over the Pole with keen eyes.

"You have been fighting before to-night. What for?" he demanded.

"Kalinski, he liar; Foley liar—all liars!"

"Yes, I know that. Is that why you were fighting Kalinski?"

Ignatz nodded.

"You have been fighting him to avenge Bob and myself, have you?"

"Yes; I fight him."

"And you thought you could whip that big brute?"

"I lick him yet."

"No; you let him alone. He has been properly punished to-night. After this keep away from him, or I will take you in hand myself. What will your mother say when she hears of this?"

"You tell her?"

"Certainly not, but she will hear of it, and I'll wager that she will give you a worse trouncing than did Kalinski. I got a job for us to-day, Bob."

"What's that?"

"I got a job."

[116]

"What is it?"

Rush told him. Jarvis looked at his companion a moment in silence, then burst out laughing.

"Fifty cents a day? Well, I must say we're getting up in the world. How do you suppose we are going to live?"

"I have been thinking of that. In fact I saw the necessity of readjusting our finances before we lost our jobs in the mills."

"I should say so," agreed Jarvis.

"We have been getting six dollars a week in the mills here, and we are paying five apiece for our board. If we take the new job we shall be getting only three dollars a week and paying out five."

"We'll have to make an assignment then," grinned Bob.

"I know a better way."

"What?"

"Get a new boarding place, where we shall be able to live within our means or thereabouts."

"I'd hate to live in the boarding house that would come within our new means," grumbled Jarvis. "This one is about the limit. It strikes me that the best way to make money for ourselves would be to start a boarding house."

"We are not in that line of business," answered Steve shortly. "Ignatz, do you know of a clean, cheap place where we can get board and room?"

[117]

"Clean and cheap," Bob repeated. "They don't make 'em. High-priced and dirty is the rule."

Jarvis laughed loudly.

"Me know place," nodded Brodsky.

"Good, I thought you would. Where is it?"

"You come by my house."

"What's that? Your house?"

Ignatz nodded.

"Why, your mother would not take us. She has a large family, and she would have no time."

"Come by my house. I fix it."

"What do you think of that, Bob?"

"It strikes me, Steve."

"I am afraid your mother will not listen to it, but I am sure it would please us very much if she were to take us."

"Come, I make her."

"No, we won't do that. If she is willing and can make us a price within our means, of course we will go."

Ignatz had risen and was waiting for them to go with him.

"Will you come, Bob?"

"Sure I will. Maybe I'll meet Kalinski on the way," grinned Jarvis.

The three boys started off for the Brodskys. Mrs. Brodsky welcomed them, for she liked these two open-faced young fellows for whom her son held such an affection. He talked of them most of the time when he was at home. Ignatz was full of his subject to the bursting point. [118]

"My friends come live by us, Mother," he said finally.

"What you say?"

"Steve and Bob come live by us."

Mrs. Brodsky opened her eyes.

"So?"

"Yes."

"When?"

"Now, to-morrow."

"It is this way, Mrs. Brodsky; we have to find a new boarding place," Steve explained. "We were asking Ignatz if he knew of a place, and he said he thought you might be willing to take us. We shall not be much trouble to you, as we don't throw things about in our rooms. We can sleep in one bed and we will make that up if you do not have the time to do so."

"So?"

"Yes, ma'am."

Mrs. Brodsky was rather dazed. She never had taken boarders before, and she hardly knew what to say. She looked from the now eager face of Ignatz to the expectant ones of the Iron Boys. [119]

"So?" she murmured.

"Yes, ma'am."

"They come by us to-morrow," urged Ignatz.

"How about it, Mrs. Brodsky?"

She nodded slowly.

"Thank you very much. Now, what will you charge us?"

"How much you give?"

"Whatever you think is right."

After reflection, Mrs. Brodsky said she thought about two dollars a week would be right. If that was too much she would charge them less.

"No; that is too cheap," said Rush. "We will give you two dollars and a half, gladly."

Mrs. Brodsky smiled benignly.

"Fine boys!" she said.

Ignatz was very happy. He began talking joyously, until sternly reproved by his mother. It was arranged that the boys were to move into their new quarters early on the following morning. The room assigned to them was small, but the perfection of neatness. There was a clean, white spread on the bed, a wash stand with a clean towel laid over it, though, as Bob observed, the pitcher and wash bowl had seen better days. There was no carpet on the floor, but this they did not mind. After making final arrangements and paying over one week's board, the Iron Boys took their departure, very well content with what had been accomplished. [120]

"We could just as well have gotten it for two," said Jarvis after they had left the house.

"Yes, but I am not quite so mean as that. That extra fifty cents apiece means a lot to us, and I shall be glad to be there. We shall have a happy day to-morrow, and perhaps we will take that long-deferred picnic trip."

CHAPTER XII

THE BOYS MEET WITH A SURPRISE

IGNATZ had gone when the Iron Boys made their appearance at the Brodsky home next morning, carrying a trunk between them.

"Good morning, Mrs. Brodsky and all the little Brodskys," greeted Steve, with a winning smile, as the family met him at the door. The coming of the boys was an event in that household. The children were bashful, and not a word could he get out of them. They hid behind their mother's skirts, peering out at the newcomers suspiciously.

After placing the trunk in their room the lads went back for the second trunk, which was Steve's. An hour later they were well settled in their new quarters. They decided to wait until after the noon meal before starting off on their pleasure jaunt.

"I suppose our friend Ignatz is at work, Mrs. Brodsky?" said Steve, sitting down in the parlor for a chat with the widow.

"Yes."

"Well, he is a good boy and you should be proud of him. If ever I get a good position I shall give Ignatz a job that you will be proud of." [122]

"You'll be lucky if you get one for yourself," grunted Jarvis.

"Luck will change, old man. When a fellow sets his mind on doing a certain thing, then drives straight ahead, he's going to land what he is after. No one can stop us, Bob."

"Well, all I've got to say is that some one has given a pretty good imitation of stopping us."

While they talked, Ignatz, instead of being in the mill, as they supposed, was hanging about the entrance to the company's offices. He had heard, that morning, that the general superintendent had returned from his trip, and young Brodsky was determined to see him, even if he lost a day's pay in his effort to do so.

There were two entrances to the office building, but Ignatz had forgotten this. After waiting nearly three hours he hailed a clerk who came hurrying from the building, with the request to tell him if Mr. Keating were coming down that morning.

"He's in his office now, young man, but he is very busy," was the answer as the clerk hurried away.

Brodsky did not care whether the superintendent were busy or not, for his own business was more important than anything that Mr. Keating could possibly have on hand, according to the way Ignatz reasoned it out. [123]

The Pole climbed the steps leisurely, peered into the corridor through the glass door, and seeing no one there, entered. He saw no one after he got in. Even the Iron and Steel Policeman who usually stood guard in the hall was not there. The man was in the office getting some orders from the superintendent.

Ignatz, who did not know that the regular entrance to Mr. Keating's office was through the main offices, wandered on down the hall, slowly spelling out the names on the doors. At last he reached a door on which the word "Superintendent" had been painted in large letters.

The long word bothered Ignatz, but he labored with it until he managed to convey the sound of it phonetically to his ears.

"Him there," he muttered.

Then Brodsky boldly turned the knob, opened the door and entered.

Mr. Keating glanced up from his desk in surprise.

"Well, sir, what do you want?" he demanded.

"All liars!" exclaimed Brodsky, striking a dramatic attitude, legs apart, arms waving wildly above his head.

Mr. Keating regarded the boy keenly.

"Who are you?" he asked sharply. [124]

"Ignatz Brodsky."

"Well, what do you want?"

"All liars!" persisted Ignatz.

"So I heard you remark before. Who is it who has lied?"

"Kalinski, Foley—all liars."

"See here, young man, I am inclined to think you are crazy, but if you have anything to say to me,

say it quickly and run along. Now what do you want?"

"Steve Rush and Bob Jarvis, him not lie."

"Rush and Jarvis," repeated the superintendent. "What about them?"

"They not blow up the cinder pits. Kalinski say they do, then pouf, out they go!"

"I don't understand?"

Brodsky was dripping with perspiration from his efforts to make himself understood.

"Has anything happened to Rush and Jarvis?"

The boy nodded.

"What is it?"

"Him fired. Him no get job. Kalinski, Foley—all liars."

"The boys have been discharged, do you mean?"

"Yes."

"What for?"

[125]



"All Liars!" Exclaimed Ignatz.

"For lies. Mr. McNaughton him fire boys because Kalinski tell lies."

[126]

The superintendent snatched the telephone receiver from its hook.

[127]

"Give me Mr. McNaughton's office!" he commanded sharply. "Hello, McNaughton, is this you? Is it true that the two young men, Rush and Jarvis, have been dismissed?"

"Yes." Brodsky caught the word faintly.

"What for?"

The boy could not hear the reply in the telephone, but he did hear the superintendent's next remark.

"Come to my office at once. I wish to talk with you. Brodsky, I am very much obliged to you. Sit down. I may want to ask you some questions after Mr. McNaughton gets here."

Ignatz, whose face had resumed its ordinary stolidity, dropped into a chair, while his eyes gazed vacantly through the window. Soon the division superintendent came hurrying in.

"What is this you tell me about those boys having been thrown out?" demanded Mr. Keating, with a slight show of irritation.

"They are a bad lot, sir; a couple of impudent, untrustworthy fellows. I wouldn't have them in my

division under any circumstances."

"Why not?"

"Because, in the first place, they disobeyed orders and blew up the cinder pit after having been warned not to put water on it while the cinders were still hot. Then again, they had several quarrels with the pit boss and the foreman. Even in my office, where I called them to hear their story, they answered me in a most impudent manner." [128]

"Is that all?" demanded Mr. Keating, in a sarcastic tone.

"Well, it is all I can think of just now."

"Hm-m! A desperate pair, eh? McNaughton, I thought you were a better judge of human nature than that."

"What do you mean, sir?"

"I mean, with all due respect to you, that I don't believe a word of this. What did the boys say—what excuse did they offer?"

"Denied it, of course."

"Tell me exactly what Foley and Kalinski said in making their charges."

Mr. McNaughton did so. There was a slight flush on his cheeks, brought there by the sharp answers of the general superintendent.

As he finished, Ignatz suddenly came to life again.

"All lies!" he exclaimed, waving his arms over his head, after which he subsided.

"That will do, Brodsky!" commanded Mr. Keating sternly, while his division superintendent flushed violently. "There is something more to this affair than you seem to have learned. These boys came to me with the highest recommendations from President Carrhart. They held responsible positions in the mines and they came here to learn the steel business after having followed the ore all the way down. There is some mistake; depend upon that." [129]

"I do not think there is any mistake, sir. I know a bad boy or a bad man when I see him. These boys are the limit. Why, sir, I hear they made an attack on Kalinski on the street last night, beating him nearly to death."

Mr. Keating looked grave.

"Lies!" muttered Ignatz.

"Young man, do you know where Rush and Jarvis are?"

Ignatz nodded.

"Boys go work in Stevens' mills by Monday," volunteered the Pole.

"Can you fetch them here at once?"

"Yes."

"Then do so. You need not say what I want of them. Simply that they are wanted at the office of the superintendent immediately."

Ignatz was out of the office on the run. He burst into the house, waving his arms.

"Come by superintendent, quick!" he shouted, dancing about excitedly.

CHAPTER XIII

FACING THEIR ACCUSERS

"WHAT—what for?" demanded Rush.

"Yes, what does he want with us?" questioned Jarvis, gazing with suspicion upon the boy.

"Him want to see Iron Boys. Come quick."

"Are you sure, Ignatz?" asked Rush.

"Yes, superintendent him wait by the office."

"But why does he wish to see us?"

"I not tell. Him say I mustn't."

The Iron Boys laughed at this.

"I guess it is all right, Bob. Our friend has given himself away. I shouldn't be surprised, however, if Mr. Keating were sending for us to express his disappointment at our failure to make good.

When did he return from his trip, Ignatz?"

"Last night."

"You seem pretty well posted," laughed Rush, bending a keen glance on the excited face of the boy. "Very well; we will go with you, although I rather dislike to do it. It seems as though we were begging to be taken back, whereas we know that such is not the case."

On the way to the office of the mining company Steve sought to draw out Brodsky as to the causes that had led up to Mr. Keating's sending for them, but Ignatz was as uncommunicative as a Chinaman. He appeared almost idiotic in his ignorance. This brought a smile to the face of Steve. He knew the Pole had had some hand in the affair, and Steve shrewdly suspected that the boy was directly responsible for the summons they had just received. However, he pressed his inquiry no further. They would soon know, for they were ascending the steps to the office building. [131]

Rush entered the reception office, sent in his name and was bidden to enter. This he did, followed by Jarvis, and, bringing up the rear, was Ignatz Brodsky.

"How do you do, lads?" greeted the superintendent cordially. "Will you be seated?"

Mr. McNaughton, at the first glance, was somewhat taken aback. Here were two well-dressed, gentlemanly young men. The boys whom he had discharged had been clad in their rough working clothes, hair unkempt and faces streaked with the soot of the mills. There was honesty and manliness in both faces now, though the face of Bob Jarvis was considerably the worse for wear, between his late accident and his battle with Kalinski. The lads seated themselves as requested by the superintendent.

"Brodsky tells me that you wish to see us, sir," said Rush, after greeting the division superintendent. [132]

"Yes, I do. What is this I hear about you boys having been discharged?"

"I think Mr. McNaughton can answer that question, sir," replied the Iron Boy, with the suspicion of a twinkle in his eyes, as he glanced at the division superintendent. The twinkle was not lost on Mr. Keating, and he nodded, while McNaughton flushed half angrily.

"Mr. McNaughton dismissed you?"

"Yes, sir."

"Why?"

"I presume he thought we ought to be discharged."

"You are evading the question."

"I have no such intention, sir. What is it you wish me to say?"

"Tell me the story as it is. It is quite evident that there has been a misunderstanding here. Mr. McNaughton has been misled by some one."

"I will tell all I know about it, and exactly as it occurred. We began our work, evidently having incurred the dislike of the foreman and the pit boss before we even started in the pits."

"Why should you have gained their displeasure?" interrupted Mr. Keating.

"I can only surmise. The foreman was enraged when, as an inspector in the accident department, I made a report which brought criticism down upon him and led to his being reduced." [133]

McNaughton nodded. Already he began to see a light.

"Now we are getting down to cause and effect," announced Mr. Keating, shooting a swift glance at his division superintendent. "Go on."

"The two men began making it uncomfortable for us at once. But I dislike to say these things. It sounds as though we are whining. We don't intend to do anything of the sort. We are willing to take our medicine and smile, no matter how bitter the dose."

"Go on!"

Steve proceeded to relate the differences they had had with Foley and Kalinski, but through it all he did not mention the names of the foreman and the pit boss. From this he went on to tell what he knew about the warning, the hurrying away of the two bosses and the eventual explosion of pit number eight.

Bob Jarvis was asked to give his version of the affair relating to the explosion only, which he did, pointedly and concisely. To a fair judge of human nature there was no doubt at all as to the truth of the story the boys were telling.

"Now, Jarvis, you say that you did not know you were doing a dangerous thing when you put the whole stream of water on the pit, do you?" [134]

"Do I?" repeated the boy.

"Yes?"

"Do you think I would be foolish enough to blow myself up, just for the sake of feeling myself going up?" demanded the Iron Boy, with a belligerent tilt to his chin.

Mr. Keating leaned back, laughing heartily.

"Well, candidly, I don't, though I do not think even that consideration would stop you if there were any good reason for your blowing yourself up."

"I suppose you are not so far wrong at that," muttered Bob, coloring.

"There is another point that I should like to ask you about," said Mr. Keating, turning to Steve.

"Yes, sir."

"How much truth is there in the statement that you two assaulted Kalinski in the street last night, beating him so badly that he was unable to report for duty this morning? He is in the hands of a doctor, I understand."

Steve colored again, and Bob laughed bitterly.

"All lies!" exclaimed Brodsky.

The two superintendents turned sharply. They had not noticed his presence before.

[135]

"Brodsky, what are you doing in here?" demanded Mr. Keating.

Ignatz did not answer.

"If you speak again, until you are spoken to, I will call the officer and have him put you out."

Ignatz subsided, settling far down in his chair.

"It is both true and untrue."

"Explain."

"I will do so, though I was not present at the beginning of the trouble. Jarvis can better tell you more about that than I, and I do hope that what we say will not get our friend, Ignatz Brodsky, into trouble. He is a faithful friend and an honest, well-meaning boy."

"I will decide that when I hear the story. Jarvis, you may tell it."

"It was this way," began Bob. "I—we—had been suspecting that Ignatz was watching Kalinski and Foley ever since we were discharged from the mill. He took our dismissal very much at heart. He got hurt on the street, the other night, and said he had been kicked by a horse. I suspected that it was a two-legged horse that had kicked him. Last night, as I was walking along, I saw Ignatz. I followed him. Then, soon after, I saw Kalinski coming from the post-office. Both men stopped and then I began to understand what was in the wind. Well, sir, they sailed into each other without a word——"

[136]

"Who started the fight?" interrupted Mr. Keating.

"Both," answered Bob promptly.

"Go on."

"I didn't think it was my business to take a hand, though I wanted to. The little fellow held his own pretty well for a time, but the boss was too big and strong for him. Then Kalinski knocked the boy down, and began to kick him."

"The ruffian!" exclaimed Mr. Keating.

"Yes, sir, that's what I thought; and not a man of the crowd that had gathered went to the boy's assistance. They seemed to think it was a barrel of fun. Well, sir, you know I couldn't stand for that."

"I should say not."

"I just sailed in, and we had it right and left all over the street. He had a sore nose and I played a tune on that for a little while. I had a sore head, where I got burned the other day in the mill, and Kalinski played rag-time on that. After awhile there wasn't any more music left in either of us, except in our ears. Mine were ringing like a church bell at Christmas time."

By this time both superintendents were laughing at the humorous recital of the Iron Boy. Even Steve Rush was smiling, despite his efforts to be serious.

[137]

"What next?" questioned Mr. Keating, brushing his hand across his face to hide his laughter.

"I wound up with a tattoo on his face, and Kalinski went to the ground, and I didn't kick him either. It came pretty close to being a fight."

"I should say it was a real fight," remarked the superintendent dryly. "Then Rush had no part in it at all?"

"He came in when we were having it hardest, and the crowd was getting ready to jump on me because they saw I was getting the best of the pit boss. Rush held the crowd back so I should have fair play; that's all."

"What was Brodsky doing all this time?"

"He was shouting 'liars!' most of the time. But when he saw that the crowd were going against me, he called 'police,' and the crowd ran away. (Much obliged, Ignatz. I hadn't thought to thank you for helping me out before.) I had to do it. You would have done the same as I did, Mr. Keating, because you're a man—"

"You're right, I should have, Jarvis!" exclaimed the superintendent, bringing the flat of his hand down on his desk with a resounding whack. [138]

"At any rate, you can't fire me because I'm not working for you any longer."

"Oh, yes, you are. McNaughton, what do you think about these boys now?" demanded the general superintendent, turning to his division superintendent.

"I don't think; I know. I have done these boys a very great injustice and I am willing and ready to make amends in any way that I can. I don't know how I could have been so deceived."

"Naturally, not knowing them, you took the word of your foremen. I am not inclined to blame you under the circumstances. But, boys, I am sorry this has happened. I apologize to you, for you have been very badly used. Do I understand that you have taken another place?"

"Yes, sir; that is, we can have the place if we wish it. There is no obligation on our part to go if we do not wish to."

"Why did you not come straight to me with your story at once?"

"It did not seem right to go over Mr. McNaughton's head. It seemed an unmanly thing to do."

Mr. Keating nodded at the other man, as much as though to say, "I told you so." What Keating said aloud was: [139]

"Not many would have followed that course, McNaughton."

"No, sir," agreed the assistant superintendent.

"We shall have to take some action in the cases of Foley and Kalinski. Each is equally to blame."

"Yes, sir."

"My inclination is to dismiss them summarily. Have they families?"

"Yes, sir; large families."

"Hm-m-m," reflected Mr. Keating. "That makes it rather difficult to do with them as I otherwise should. However, they must be punished. I'll tell you; they must both be reduced to the ranks. I do not want any such men in positions of responsibility in mills of which I am the head. It is not safe. Put them at whatever they can do."

"They will quit, sir."

"Let them! I hope they do. It relieves me of a disagreeable job that sooner or later it will be necessary to tackle. Brodsky, you are a good boy. I shall look into your case and see what can be done for you."

"Then do we go to work?" asked Jarvis.

"You are at work already. I will see to it that you are paid for the time you have been off. It was a rank injustice. But I am going to shift you to another department. How would you like to try the blast furnaces?" [140]

"We are ready to go wherever you put us," answered Rush.

"You proved that by taking the job in the pits. That will take them out of your department, McNaughton."

"Yes; I am sorry, too, for I rather hoped to be able to make up for my shortcoming in this matter."

"You were not to blame, sir," said Steve. "We are very grateful to you for your kind words to-day. Shall we begin in the furnaces to-morrow, Mr. Keating?"

"No, Monday will do. In the meantime I will have your time corrected, so that you will have lost no time by the mistake that threw you out. McNaughton, you will attend to Foley and Kalinski at once?"

"Yes, sir."

The Iron Boys rose.

"Thank you, Mr. Keating. We are more grateful than we know how to express. We will show you that we are both appreciative, and I hope you won't have to be told that we are not doing our duty."

Bowing their thanks the boys left the office, Brodsky having already sneaked out ahead of them. They espied him lurking around the turn in the hall, watching for their coming. [141]

"Ignatz, you rascal!" called Bob. "I ought to give you a good thumping. You don't deserve to be let off with a scolding. How would you like to have me tell your mother you have not been at work today?"

"She know when she git my wages."

"No she won't," interjected Steve, "for I am going to pay your wages for just this one day. You come with us. We are going on a picnic."

Three happy boys started off for a place they knew of up the river, where they were going to spend the afternoon. Steve bought some cakes and sandwiches at a baker shop, and a few bottles of mineral water, then off they went for their holiday.

CHAPTER XIV

BY THE ROARING FURNACES

IN the daytime a row of tall black, cone-shaped chimneys might be seen across the river from the mills themselves. At night these chimneys were pyramids of yellow and red fire. [142]

These were the blast furnaces. In them, the ore, as it came from the mines far away on the Minnesota iron ranges, was reduced to pig or pig iron, by smelting at a temperature of fifteen hundred degrees centigrade—about twenty-seven hundred degrees Fahrenheit. This great temperature boils the slag or impurities out of the metal, and after it has been drawn off into ladles it becomes "pig."

From the blast furnaces the pig, red-hot in its molds, is conveyed to the open-hearth furnaces, where it is subjected to a still further boiling process at the same temperature as before, and then it is steel. Steel is pig-iron combined with carbon and with the impurities boiled out.

It was to the blast furnaces that the Iron Boys were assigned, and they were to take the night trick. As they made their way that night through the yards of the mill, where engines were shrieking their warnings, cars were thundering here and there, long trains of red-hot metal rumbling over the hot metal bridge from the blast furnaces to the mills, while the flames were leaping skyward from the blast furnaces, Steve halted for a moment to gaze on the scene. Neither boy ever had been in the yards after dark, and the scene was one never to be forgotten. [143]

"Which furnace do we work in?" wondered Bob.

"Number four, I believe."

"Then that must be the fourth one."

"Naturally it wouldn't be the fifth," answered Steve, with a laugh.

They hurried across the bridge, for it was already time they were reporting to the head melter at the furnace, and being late meant being docked, for there is no sentiment in the steel mills. Every man was expected to do his full duty and a little more. Most of them did the latter.

A scene of activity and apparent confusion met their gaze as they neared the towering blast furnaces with their heating stoves sixty feet high on either side of them.

Men with barrows were rushing about, bells clanged as the charge was ready to hoist on the top of the furnace to be dumped into its never-satisfied mouth. The ore was carried up by another skip. Through the stoves roared a gas flame, leaping, licking, here and there reaching out a forked tongue as though in search of fresh prey. The odor of gas was well-nigh overpowering to the Iron Boys, for they were not used to it. [144]

The head melter, standing close up against the furnace, clad in a rubber coat and wearing green goggles, was peering into the furnace through a peep hole, while a stream of water from a hose was constantly played over his body. His face seemed to rest almost against the plates, and the bosh on which he was standing was so hot that the steam rose in a cloud about him.

Two men were inserting the prodding rod against the dolomite that plugged the ore hole near the bottom of the furnace. The perspiration was running in rivers down their half-naked bodies.

"The drill! The drill!" shouted a choking voice.

A compressed air drill was brought, a dolly-rod inserted, and then the dolomite was drilled to a thin shell.

"Stand back!" warned the head melter in a hoarse voice.

"I reckon something is going to happen," cried Jarvis in his companion's ear. The roar of the furnaces and the gas in the huge stoves made his voice sound weak and far away. [145]

Steve moved back a little, pulling Jarvis after him. Flush with the edge of a raised platform of fire-brick and steel, over which extended little gutters packed with sand, stood a string of flat

cars each holding an immense ladle. The gutters led directly into these ladles.

"That is where the iron goes, through those gutters and into the ladles," explained Rush. "It runs like water, though I have never seen them make a cast."

Just then a warning cry sounded as the dolly broke through the clay dam that holds the metal in the furnace.

Fire, scorching, burning fire leaped from the opening made with the dolly. The air was filled with brilliant, hissing stars as large as the palm of a man's hand. Some whirled like pin-wheels; others, holding their perfect shape, described graceful curves in the air, or exploded.

Men shaded their eyes, drew themselves together, and tried to shrink away from the terrific heat. But there was no avoiding it. The monkey-man who had broken through the clay dam staggered away from the opening thus made, shouting hoarsely for water.

Following the explosive stars, a river, almost blood-red, burst from the furnace with a roar, quickly changing into a river of saffron. Hissing and snapping the molten metal burned its way along through the sand-packed gutters, and shot from the ends of the gutters and into the waiting ladles on the flat cars at the foot of the platform. Everywhere the air seemed filled with fiery shapes reaching for human prey. Under foot there was danger on every hand, for a single misstep would plunge one into this all-consuming flood. The slag, or as much of it as possible, ground its way much more slowly, along another channel, to be gathered up and used over for other purposes at some later day. [146]

As one ladle was filled the waiting train would move up, bringing a new set of cars under the ends of the gutters, and when at last all the cars had been loaded the train moved off, the ladles glowing in the darkness of the night, until in the distance they became mere eyes of fire.

The Iron Boys drew a deep sigh as the operation was concluded. Four hours would elapse before another cast would be made from number four furnace, but here and there along the row of huge cones stars were bursting, streams of hot, yellow lava flowing and men shouting, snarling or begging for water.

"It is terrible, yet grand!" exclaimed Steve Rush, wiping the perspiration from his brow. Even where they stood, at one side of the furnace, the heat was well-nigh unbearable. [147]

"It strikes me as being grandly hot," answered Jarvis. "Whew, a fellow doesn't need his winter underclothing on in this job, does he?"

"The furnace men don't seem to wear any at all," laughed Rush. "I should think they would burn their skin off. I don't know whether I can stand this game or not, but I'll try it. I wonder what we are going to do?"

"I will find out from the foreman."

The foreman was not on hand at the moment, but the head melter, known under the name of Pig-Iron Peel, had received orders regarding the Iron Boys.

He motioned them to approach, when a furnace hand told him who they were. He asked the name of each boy in a hoarse, gruff voice.

"Who are you?" demanded Jarvis.

"I'm the Pig," answered the melter, his red face wrinkling into a grin, which was quickly smoothed out as if the effort hurt him.

"Pig-Iron Peel," he added.

"Ho, ho!" roared Bob immoderately.

Steve nudged him to be quiet.

"We are ready to work if you will tell us what to do," said Rush.

"You can pack the sand gutters after the charge is loaded into the ladles. Either of you ever worked on a furnace before?" [148]

"No, sir," answered the boys.

"You, what's your name——?"

"Jarvis."

"Well, Jarvis, I'll put you up on the charging platform. You won't have much to do there——"

"Where is the charging platform?" interrupted Bob.

"At the top of the furnace, fifty feet up there in the air. How do you like it?"

"Fine!" answered Jarvis, though without his usual enthusiasm. "What am I do when I get there?"

"Dump the charges into the furnace. The skips you have nothing to do with, except to ring a bell when you are ready for them. They will dump four loads of red ore into the furnace; then you throw in a layer of coke and limestone, the latter being called 'flux.' This makes what we call the

charge. Is that clear?"

"Yes. What do I do then?"

"You do it all over again and you keep doing it until another man comes to take the job off your hands."

"How do I get up there?"

"Climb the ladder."

"Huh! Lucky for me I'm on the night trick, so I can't see, or I'd surely fall off."

[149]

"Rush, the sand man will show you about the troughs. Jarvis, you hike upstairs. Tell the man I have up there that you are to relieve him. He will show you about operating the levers. Have him put in a charge while you look on."

"Is there any light up there, so I can see what I am doing?"

"You will have light enough," grinned Pig-Iron Peel. "You won't have any reason to complain about either light or heat. This charging business is a continuous performance day and night, until the furnaces have to be shut down for cleaning. For your information I will tell you that the iron, being the heaviest, sinks to the bottom of the furnace as it is melted. The cinders trickle down after it, forming what is called the heart. The latter are tapped off every two hours, the iron every four hours. If you are going to be furnace men you will want to know all these things at the start."

"Thank you for the information. It is all very interesting," answered Steve.

"And very hot," added Jarvis. "With your permission I'll go aloft now, sir."

"Go on, and look sharp that you don't fall off," warned the head melter.

"I'll cling to the sheets, sir."

Bob, after the ladder had been pointed out to him, began to climb. He had not gone far before he discovered that the rungs of the iron ladder were hot. They were so much so that he yelled, "ouch!" removing first one hand and then the other to rub it on his trousers. He was unable to keep both hands on the ladder for any great length of time.

[150]

Bob began to growl, and he kept up his growling all the way up the fifty-foot ladder. Finally he decided he must have gone about a hundred feet, instead of fifty and halting he shouted, "Hello!"

"Hello, yourself," answered a gruff voice from the cloud above. "What do you want?"

"It isn't a question of what I want, but rather what I am going to get. Are you the feeder?"

"I'm charging, if that's what you mean."

"Well, if you don't charge too much I'll come up and be shown," laughed the irrepressible Bob.

"Quit that fooling or I'll throw a bag of coke down on you."

Bob ran nimbly up the rest of the ladder, and a moment later stood facing a soot-covered fellow of about his own age.

"Say, did you mean that about the coke?"

"You'll find out whether I did or not, if——"

"Look here, pard, if you get funny I'll put you in with the coke and the—the limestone. I'll bet they'd never get the impurities out of the iron after you once got in it. It would be pig forever afterwards. Ha, ha! How's that?"

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"You're too fresh, that's what's the matter with you," growled the charging boy. "Git busy here; I'm going down. I don't belong up here anyway, and I'm glad of it."

"Don't say that," protested Jarvis, with mock seriousness. "It is a matter of sincere regret to me that this isn't your regular job. I'd just as lief be down on the ground carrying water, as up here feeding the mouth of the furnace. The boss monkey down below said you were to show me what to do."

With a grunt of disapproval the charging boy instructed Jarvis in his duties, then with a "so-long," hurried down the ladder, leaving the Iron Boy alone in his glory.

Bob glanced about him curiously. Directly over his head, it seemed, flared the flames from the huge stove. Every now and then the great flame would swoop down a fiery tongue as if bent upon lapping him up. Bob instinctively ducked as the breeze carried the flame down toward him. He believed that a gust of wind would surely bring the flame on him, which he was certain would be the end of Bob Jarvis.

Off to the right and to the left of him were other swaying pillars of fire from the stoves of the other furnaces, and over on the opposite side of the river black smoke and red fire poured from the funnels of the open-hearth furnaces there. Bob himself was enveloped in a dense cloud of suffocating smoke, which, breathed into his lungs, set him coughing and choking.

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"I wish I had stayed fired!" he muttered. "This is worse than the cinder pits."

Time passed quickly, however, and between watching the skiploads of ore as they shot up to him with disconcerting suddenness, and dodging the flames from the number four stove, Jarvis was kept reasonably busy.

Down below Steve, on hands and knees, was patting the sand in the gutters into place, smoothing it off so that there should be no projections to catch and retard the flow of the hot metal when the next cast was made. He found Pig-Iron Peel, despite his rough appearance, to be a kind-hearted man. This was a distinct relief after the experience of the lads in the cinder pits under two bosses who had lost no opportunity to do them harm. Now and then the head melter would step over to instruct the Iron Boy in his duties, and even at the distance from the furnace that Steve was working the heat was well-nigh unbearable. He was obliged to make frequent trips to the water barrel, and now and then he showered himself from head to foot with the ready hose. The skin was peeling from his face and his work clothes were burned through in many places. [153]

"Stand by for the tap!" commanded Peel.

Rush was so busy that he did not hear the command. He did hear the tap, tap of the mall as it drove against the prodding rod, but this held no special significance for him. In the darkness preceding the cast the others did not observe him.

Suddenly, with a roar, the saffron flood burst through the clay dam. Millions of hissing stars leaped into the air and a river of molten metal swooped down on Steve Rush in its all-consuming flight.

CHAPTER XV

 [154]

MENACED BY A DOUBLE PERIL

"**L**OOK out!" roared the warning voice of the head melter.

Steve turned just in time to see a wall of golden metal almost towering over him. Even his quick mind did not grasp the meaning of the scene until it was too late. His muscles refused to obey his command, and for once in his life the Iron Boy stood with a sensation in his heart that was not far removed from fear. He did not know which way to turn for safety, even had he possessed the strength to escape from his perilous position.

Yells and shouts of warning from all sides merely served to confuse him the more. Had it been daylight Rush no doubt would have quickly thrown himself to one side.

Suddenly something came whirling through the air. The Iron Boy did not see it, and it is doubtful if more than one man about the furnace did. It was a dark object, and it smote Steve across the chest with terrific force.

The Iron Boy staggered backward, toppled over just as the molten flood from the furnace went hissing past. The boy did not stop there. His body began rolling down the incline leading to the jumping-off place, below which the tracks were located. His body shot over ahead of the metal, for that had to follow a circuitous course. There was little danger of its overtaking him, as a dam at the lower end was intended to check its flow until the train had backed in with the ladles to receive the ore. This train, as it chanced, was at the moment backing down to the furnace at high speed, for the train was late and the tapping of the furnace, the engineer knew, could not be delayed without perhaps doing great damage to the metal. [155]

Bob Jarvis, from his perch high in the air, had caught sight of the scene that was being enacted below as a draught of air tore aside the curtain of smoke that during the evening had blotted out the lower end of the furnace. Forgetful of his duty up there Bob sprang to the ladder. He did not wait for the hot rungs this time; but, grasping the sides of the iron ladder, shoes on the outside pressed tight against the uprights, he dropped out of sight of the charging platform like a stone. The rapid descent was burning the skin from his palms and an odor of burning leather reached his nose faintly as the iron sides of the ladders burned through the shoes pressed against it.

Bob landed with a jolt. He dropped to the furnace floor, but was up in a twinkling. Leaping the saffron river he bolted across the intervening space and sprang straight out into the air, right in the face of the approaching train of flat cars thundering in. [156]

There was a ten-foot drop to the ground. Jarvis did not know whether he was going to land in a pit of hot ore, cinders, or on a fence of iron that would end his career right there.

By the light from the opened furnace, as he was falling, he saw the tracks below him and the form of Steve Rush lying stretched across them. Bob saw something else too—the long line of flat cars swooping down on Steve.

Jarvis landed on all fours. He did not waste time in glancing about to see where the train was. Instead, he grabbed Rush, pitching him headlong out of the way. Steve landed on his head, pivoted for a second, and then fell over on his back.

Jarvis straightened up and started to leap clear of the track when he was struck a terrific blow from behind. The force of the blow lifted the boy from the tracks. As everything about him began

to grow black he felt himself being hurled through the air.

There was no time to shout, nor opportunity to help himself. Bob had been struck by the train, the end beam of the leading car having caught him squarely across the hips. Bob landed some ten feet beyond the spot where Steve was lying. The latter, however, had been barely stunned. About the time Bob went soaring over his head, Rush scrambled to his feet and hands then got up limping a little. [157]

But Steve was dazed. The glare of the intense light from the open furnace blinded his eyes so that he could not see a thing distinctly. He heard the shrill shriek of the shifting engine, then four quick, warning blasts. The Iron Boy ducked instinctively at the same time leaping to one side.

By this time objects began to grow out of the glare with more or less distinctness. Steve rubbed his eyes and blinked.

"I wonder what happened? I know—I got an awful rap from something."

His arms ached and his chest was so sore that the touch of his clothes gave him pain. About that time Rush discovered that raising his arms was attended with more or less pain also.

"Hello! Something is going on over there by the furnace. Now what in the world has happened? If Kalinski were anywhere about I should think he had been trying some of his tricks on me again."

Kalinski was not there, but three men who had climbed down from the brick and steel platform about the furnace came running around the lower end, heading for the spot where the Iron Boy was standing. [158]

"Hi, whom are you looking for?" Steve called.

"Hello, who's that?" answered a voice.

"It's Rush. I'm all right. Something must have hit me and knocked me off the platform."

"I guess something did hit you," answered a voice that Steve recognized as belonging to the head melter, Pig-Iron Peel. "Where is the other boy?"

"What other boy?"

"Jarvis?"

"Why, he's up at the top of the furnace on the charging platform."

"Not much he ain't!" answered Peel. "He's down here, somewhere."

"Down here?" wondered Rush.

"Yes."

"How did he get down here?"

"He came over after you. Never saw such a quick move in my life. What's bothering me is how he ever got down the ladder soon enough to get you. He saved your life all right, boy."

"Hello, Bob!" shouted Steve, realizing all at once that something more had occurred than he knew about. "Bob!"

"Hello," answered a faint voice off in the darkness of the yard. [159]

Rush darted forward, followed by the head melter and his two companions.

"Where are you, Bob?"

"I'm here—what's left of me, and that isn't much."

They found Bob on his knees, gingerly rubbing the injured portion of his anatomy.

"Are you hurt?" begged Steve solicitously.

"Hurt? Why, I'll never be able to walk again as long as I live! I'll have to sit around all the rest of my life."

Bob's companion was helping him to his feet, bringing groans of pain from the unfortunate Jarvis.

"Don't touch my hands; they're skinned. Oh, what a fool I am! Let me alone; don't you see I'm skinned alive?"

With Steve on one side of him, and Pig-Iron Peel on the other, Jarvis was led over to the stairs that extended up to the platform.

"Will you please tell me what happened to you?" demanded Steve.

"Ask the boss. I don't know. I think I must have been kicked by something. Are there any mules in the yards."

"No; no mules," replied Peel. "You were hit by a train."

"You don't mean it? I'll bet the train was wrecked! Nothing—no train could hit an object with the [160]

force that I was hit and not be bucked off the track. That's so; I remember, now, I was getting you off the track when I was struck."

"Yes; you would have been run over and killed on the spot if Jarvis hadn't got you when he did. How did you get down from the charging platform?" demanded the melter, turning to Bob.

"I shot the chutes and it was the hottest shoot I ever took. Look at my hands."

"So I fell on the track, did I?" questioned Rush.

"Yes."

"How did I happen to do that?"

"You fell over the edge right in front of the train."

"Yes, but something hit me and knocked me over. I remember getting a whack something like that described by Bob, only I wasn't struck in the same place."

"I hit you," spoke up the head melter.

"You did?"

"Yes. There wouldn't have been so much as a grease spot left of you, by this time, if I hadn't."

"What did you hit me with?"

"I threw the dolly at you, and it did the business. It knocked you plumb over on your back. The cast was right on top of you when I let go the dolly. You know the rest." [161]

"Then you saved my life, too, Mr. Peel?"

"Well, something of that sort," grinned the head-melter.

"We're both entitled to hero medals, you see," added Bob.

"Thank you; I owe you both one for that. Well, Mr. Peel I am ready to go to work. How about you, Bob?"

Jarvis glanced up to where the ladder disappeared in the veil of smoke high above them.

"If I had an elevator I'd be all right, but I'll try it."

"You need not go up if you don't feel like it," said the melter. "I will send one of the furnace men up to finish your trick, if you wish."

"No, I'll go myself. There won't be any trouble about getting down. I can fall down, but the difficulty will be in climbing that ladder with the skin all off my hands. Say, those rungs are hot. Why don't you cool them off?"

"We'll play the hose on you while you are going up if you want."

"You'd better not, if you know what is good for you. If you even breathe on me I'll fall off. Well, here goes!"

Rush, followed his companion to the foot of the ladder. [162]

"Are you sure you are all right, Bob?" he asked anxiously.

"No; I am not all right, but I'm right enough to beat this game. I can't do any more than break my neck, and I guess that isn't breakable. We have had our initiation ceremonies; now maybe we'll go along for a time without anything happening. Here goes!"

Bob, with evident effort, began climbing. Once he seemed to lose his grip and Steve, believing he was going to fall, started to run up the ladder.

"Quit that!" howled Jarvis, feeling the vibration on the ladder. "What are you trying to do—throw me off?"

"I thought perhaps you needed some help."

"I'll tell you when I do. What I want most just now is to be let alone."

Rush stepped back to the platform, but he remained standing there until finally Jarvis disappeared in the cloud of smoke and gas up near the top of the blast furnace. Then he turned back to the furnace work.

"What next, Mr. Peel?" he asked.

"Well, if you think you can get out of the way quick enough, you can begin to patch up the gutters again."

The hot metal train had long since pulled away over the bridge, on its way to the mills, where the ingots would either be rolled in their crude state or placed in the open-hearth furnaces to be transformed into ingots of steel. [163]

"I guess I can keep out of the way, now that I know what to keep out of the way of."

"I'll put you on the dolly to-morrow, and make a monkey-man of you. If you don't get incinerated we'll make a real man of you."

"Thank you."

Peel did not know whether the remark was intended to be sarcastic or not, and Steve's impassive face gave him no clue to the truth.

For the rest of the night each of the Iron Boys labored faithfully, and that morning, the moment they struck their beds, they instantly fell into the deathlike sleep of the laborer in the steel mills.

CHAPTER XVI

[164]

THROUGH THE MELTING POT

"I'VE got a new job for you," said the head melter to Steve, when the Iron Boys reported for duty on the following evening.

"Am I to be the monkey?"

"No, not to-day. I'll let you be the ladle man."

"What does he do?"

"Not much. He stands with a ladle in his hands, scooping from the molten metal, as it bursts out through the clay dam, all the cinders and slag he can pick up. Every little bit helps. You've got to watch lively, or you will be burned to a crisp before you pick up the first ladle full," was the cheerful additional remark of the head melter.

"I was going to ask if you have a new job for me to-night," interrupted Bob, "but I don't think I care very much for your promotions. That's where I have the best of you, Steve. If anything happens in my department I can jump down, but you can't jump up to get out of the way of your troubles."

"At least, I am in little danger of breaking my neck in trying to jump up," laughed Rush.

Bob was soon at the top of the furnace. He was still sore from the bump he had gotten in collision with the train of flat cars. Jarvis walked with a limp. One leg seemed to be shorter than the other, since the accident, but of course this was not the case. He took up his work with more confidence than he had begun it on the previous night, relieving the monotony by alternately whistling and singing, though the latter was usually attended with a severe coughing spell as he swallowed a mouthful of gas and smoke.

[165]

Steve found his new occupation far from an improvement over what he had begun with. His first effort to scoop cinders and slag from the yellow stream resulted in his losing his eyebrows, much of the hair on his head and nearly all the clothing he had on.

Had it not been for the quick action of the man with the hose he would not have had a stitch of clothing left on him, and perhaps very little skin-covering either.

"Dip and jump!" shouted the melter. "What are you trying to do?"

"Principally jumping, only I didn't jump quite quickly enough," laughed Steve, the tears running from his smarting eyes. He bathed them liberally in cold water, after which they felt better.

The next dip was not much of an improvement over the first, except that there were fewer clothes to be burned and no eyebrows at all. Now, Rush was shouting for water, as had the others before him. Being a raw hand it was dashed over him by the pailful, in addition to the deluge he got from the hose in the hands of the hoseman.

[166]

The Iron Boy staggered away, gasping for breath. His head was a-whirl and he felt as though he were on fire.

"Water, water!" he gasped, settling down in a heap.

No one laughed. No one cared. They were used to such scenes of suffering, and the rough furnace men felt no compassion for the suffering boy. It was the water man's business to cool him off and no concern of theirs.

In a short time Rush recovered and went staggering to his work again. Once more he collapsed, and once more he was brought out of his partial faint by a pail of water and hose.

This kept up for the greater part of the night, but each succeeding collapse left him weaker and weaker. Still, Steve Rush clung doggedly to his task. Only his iron will kept him up. Every pore in his body was the outlet of a living stream of perspiration. Never in his life had he suffered the excruciating or long-drawn-out agony that he experienced as ladle man this night.

[167]

Pig-Iron Peel nodded approvingly. He was a rough man himself, but he appreciated pluck and he knew pluck when he saw it.

"You had better lie down between casts," he advised, grasping an arm of the Iron Boy, who was staggering about blindly after a successful dipping, for even in his suffering he was rapidly

getting the knack of the work.

"I do—don't need to," gasped Steve.

"I don't care. I was simply telling you."

The next dip was worse than any that had preceded it. This time Steve did not need to be told. He fell down without any effort of his own. He simply collapsed, rolling over on his back on the hot brick flooring of the platform, where he lay gasping for breath.

A pail of water was dashed over him and the hoseman played the hose up and down his body. But Rush did not care. It is doubtful if he even felt the cooling effect of the water. The boy was too nearly spent for anything to matter. During this wait, however, he had more time to recover himself, and by the time the men were ready for the next cast he was on his feet. Steve's eyes were bloodshot, and seemed to stand out from their sockets like two red balls. He worked automatically for the rest of the night, not answering questions addressed to him and probably not hearing any. [168]

"They all have to go through the same experience," was the comforting assurance of the head-melter. "You will come out all right in a day or so, if you don't die in the meantime."

Steve went on with his work in silence. At the coming of the dawn Jarvis came down from the charging platform, the whites of his eyes looking twice their natural size in their frame of black soot, which was plastered over the boy's face layer upon layer. Bob found Steve leaning wearily against a pillar. The latter's face was drawn and haggard. Rush looked years older. Jarvis gazed at him in astonishment.

"In the name of goodness what's the matter with you? Are you going to die—are you sick, or——"

"Nothing is the matter with me," answered Steve, the harsh lines that had grown on his face during the night smoothing out into a wan, but sunny smile.

"Well, if there isn't there ought to be, for you are about the worst-looking object I ever saw."

"You—you wouldn't take a prize yourself, at—at——"

"At a poultry show, no," finished Jarvis. "Come along; are you going home, or would you rather hang around here?"

"Home?" answered Steve. [169]

"I think you will have to be carried, if you get there to-day. Shall I go get a rig for you? You're clean knocked out."

"I tell you I am all right," retorted Rush, with some show of irritation. "Don't you trouble yourself about me."

Bob gazed at his companion in surprise. Steve had never spoken to him in that tone before, so Jarvis kept still for a time as they went on across the yards, over the hot metal bridge and to the lower exit from the yards. As they were passing out they met Ignatz Brodsky coming in. The Pole stopped short, peering into the face of Steve Rush.

"What the matter with you?"

"Nothing is the matter with me, Ignatz," answered Steve, by this time in better control of himself. "I am a little tired—that's all."

"You stay by the house to-night. You no go to the furnace; you go by the graveyard by and by."

"We expect to, you old croaker," scoffed Jarvis. "Go on, or else talk about something pleasant. Where are you working now?"

"I work by the hot bed," answered Ignatz.

Bob laughed heartily.

"I guess we all do, though they are not exactly beds. Well, so long; we must be going."

Brodsky bade them good-bye, Steve waving his hand; then the Pole stood looking after them, his eyes fixed longingly on Rush, whose gait was none too steady. Brodsky shook his head and went on to work. [170]

"What's a hot bed, Steve?" questioned Bob.

"I don't know. I know a place that is hot enough to be called one."

"And I know two places, the one you work in and the one I work on top of. Do you know, the waste gas that comes out of the top of that stove is strong enough to light a whole town?"

"Goes up into the air, does it?"

"All that doesn't swoop down and suffocate me. I've been asphyxiated every ten minutes since I have been up there."

"I wonder why they don't use the gas for something else?" mused Rush. He lapsed into silence,

pondering over this subject all the rest of the way home. This was well, for it made him forget his weariness in a measure. Reaching the widow Brodsky's, Steve was for going to bed without any breakfast, but Bob was so insistent that the boy did sit down to his meal after having taken his bath. Rush ate a fairly nourishing breakfast and after that felt better. This, followed by a refreshing sleep put him in very good condition.

Steve left the house a couple of hours before it was time to go to work. He was still unsteady on his feet, but the color was returning to his face and his wonderful vitality was asserting itself. He would be himself again, in a few hours, if he were out in the open away from the killing heat of the blast furnaces. [171]

The boy wanted to see the furnaces by daylight so, that he might get a better idea of them than was possible in the night. He stopped to witness the work of the day shift as they made a cast. This was very interesting, though a wave of pity welled up in the heart of the Iron Boy for the suffering of the furnace men in the terrific heat to which they were subjected while tapping the furnace.

The cast over, he walked to where the huge black stoves towered above him, and through which the gas flamed and circulated to heat the air that was driven in over the charge in the furnace itself.

The engineer nodded to him.

"Where does the waste gas go to?" asked the Iron Boy.

"Out into the air. Why?"

"I should think they would use it for something else."

"What else?"

"I don't know."

"Neither do I. We don't use gas for anything else, except running the gas engines over on the other side of the yard. I guess you don't know much about this business, or you wouldn't be asking such questions." [172]

"One never learns much unless he does ask questions," answered the lad. "I have learned more from asking questions than I ever have any other way."

"That's right, so long as you can find anybody who's willing to answer fool questions."

Steve walked away without replying. His mind was at work, what Jarvis called working over time. The lad was thinking deeply over what he had discovered, and, though he did not realize it at the time, he had come upon an idea that was to work a great change in one department of the great steel industry.

CHAPTER XVII

 [173]

A HANG-OVER AND A FLAREBACK

"TAKE the monkey trick," ordered the head melter when Steve reported for duty at the usual hour.

This meant standing right in front of the furnace much of the time. It was also the duty of the monkey-man to prod the clay dam with the dolly when all was ready for a cast, as well as occasionally to prod through the shell of the furnace above the metal and just below the bustle pipes, in order to liberate the gases that had formed there.

If anything, it was a worse position than he had yet had. But Steve did not flinch. He was there to learn all there was to be learned, and he proposed to do so, whatever the cost to himself.

"I guess I can stand it if others do," he thought when the new detail was called off. These men were just getting ready to go to work, Steve had stripped off a good portion of his clothes and donned a light rubber coat when Jarvis, who had not yet gone to the charging platform, touched him on the arm.

"What is it?"

"S-h-h! Look out for yourself!" whispered Jarvis. [174]

"I'm going to."

"When you get a chance, without attracting attention, just look behind you and see who's here."

Rush nodded understandingly and went on with his preparations for the night's work, while Bob started for the "roof," as he called it. When an opportunity presented itself so that he could do so naturally, Steve turned.

He gave a slight start. He found himself looking into the face of his former pit boss, Watski Kalinski. The latter did not appear to have observed Steve; at least, he kept his eyes averted until the lad decided that the fellow was ashamed to look at him.

"I wonder what he is doing here?" muttered Rush.

When he got an opportunity Steve asked the head melter about it, and was informed that Kalinski was taking the place of a man who had been struck by the metal train on his way to work that afternoon. Kalinski was an old furnace man.

Steve nodded his understanding, but still he resolved to keep an eye on Kalinski. He did not trust the man, knowing well his revengeful nature.

"Next thing I know they will have Foley over here, and then it will be time to carry a club in my boot, for there'll be something doing at blast number four." [175]

Nothing did occur, however. The gang made the first cast with success. Steve still suffered from the heat, but not to the same extent. He was learning how to favor himself and to save himself, a most necessary part of the furnace man's work. Kalinski was doing general work about the furnace, but the Iron Boy did not relax his vigilance. As the evening wore on he was convinced, from certain sinister glances in his direction, that the former pit boss was contemplating mischief. It might not come that night, but it was sure to come sooner or later, and the boy did not propose to be caught napping if he could help himself. He had no idea, however, that he would be taken so by surprise as he really was.

Midnight arrived. Steve stood bravely at his place in front of the furnace. It was heated through and through, and the metal was running well. Not a failure or a mishap had occurred to mar the serenity of the head melter's temper, and his face wore a smile when it was safe to smile without running the risk of cracking the smile from the heat of the furnace. During a lull in the work Steve was asking questions about the operation of the blast furnace. He learned from the head melter that two tons of ore, as it came from the mines, smelted down to one ton of pig; that unless the ingredients were exactly right and the boiling done just right, thousands of tons might be spoiled in casting. [176]

"You have to go by instinct largely," said Pig-Iron Peel. "You can't lay down any hard and fast rule. The only way is to taste of the metal and then you know when it's done to a turn."

"Taste of it?" exclaimed Steve. "Excuse me. I have come as near to it as I want to. I'm not a metal-taster."

Peel laughed.

"I don't mean to drink the stuff down, but tasting with your ears, eyes and nose; hearing, seeing and smelling—understand?"

"Yes; I catch your meaning."

"When you get to that point you may consider yourself a furnace man. But it is dangerous business. A man never knows when he's going to get his, and be dragged out in the wagon. We don't think of it, though. A fellow gets used to all sorts of dangers, and goodness knows these mills are full of them. When a fellow gets hurt, however, it's most likely his own fault. The company does all it can to protect its men."

"So I have observed. Some of its men are more dangerous than the perils of the mills themselves," answered Steve with a laugh. [177]

"I reckon you are right at that. You're learning the whole business, ain't you?"

"I am trying to."

"Then you've bit off a full mouthful. Going to the open hearths from here?"

"I do not know; I am going wherever I am put."

"That's the usual way they promote from here, and so on into the mills themselves. Where'd you begin?"

Rush told him, relating his experiences in the pit, but mentioning no names. Pig-Iron Peel's face grew black with righteous indignation as he listened to the recital.

"Who was the fiend?" he demanded.

"I am not going to tell you."

"He ought to be whaled with a red hot angle bar, until there wasn't a piece of skin left on him as big as a bolt-head. I'd like to get the duffer in my hands just once—only once—that would be enough for a starter from me. The pup!"

Peel had raised his voice to a high pitch. Steve glanced over toward Watski Kalinski. The latter was regarding Peel and Rush angrily. It was quite evident that either he had caught the drift of the conversation by hearing some of the words, or else he suspected the truth from their actions. [178]

"I wish you'd tell me who it was, Rush."

"No, I could not think of doing that. He has been pretty well punished already, and he is likely to get worse if he tries any more of his tricks. Jarvis gave him an awful whaling, you know."

Rush raised his voice so that Kalinski could not help hearing every word this time.

"He did, eh?"

"Yes."

"Is Jarvis much of a scrapper?"

"He is a whirlwind."

"Good for him! I'll get him off the charging platform and give him something better down here," said the head melter, as he nodded approvingly over what Steve had told him.

"That's the kind of a boy for me. No, I don't mean because he fights. I got no use for a brawler, but because he can be a man when he gets up against the real thing. Tell me about that mix-up."

This Steve did, including the kicking of Brodsky, which really led to the interference of Jarvis. Peel stamped about on the fire brick of the platform, his anger growing momentarily.

"The whelp! The miserable cur! He'd better not show his face around these furnaces. I'll break every bone in his miserable no-account body. Tell me who he is! Tell me who he is!" [179]

"Not now. Perhaps some other time. The man might not like to hear it, you know."

Peel regarded his young charge suspiciously.

"Isn't it about time we made a cast? The ore smells to me as if it were about ready."

Pig-Iron sniffed the air with a snort.

"Get ready for a cast!" he bellowed. "Boy, you'll do. You've got the nose that smells, you have. Heave up that dolly bar. How's them gutters? You, Kalinski, there, see that slag trough is open. Bud, get your cinder-ladle ready. Come, now, the whole bunch of you is half-asleep. Anybody'd think you'd been out to a party all day long. Come, Rush!"

"I am here, sir."

"Git that dolly against the furnace dam, and get ready to jump when things are hot enough."

"I will jump, never you fear," answered Steve laughing.

The Iron Boy turned his back to the men and placed the dolly bar against the clay dam after facing the glaring heat at close range long enough to place the end of the bar on exactly the right spot.

"All ready, sir."

"Drive it! Steady there," warned the voice of the head melter. "Keep watch, Rush, and sing out when you get enough." [180]

After a moment the compressed air drill was put on, and after wearing the dam thin, the dolly was once more resorted to as that could be withdrawn much more quickly than could the compressed air drill. Haste was necessary, or the lives of the men would be in great peril in case the molten metal squirted from the dam around the sides of the dolly. The furnace men, especially those on the tapping job, would be likely to get the full charge in their faces.

"Clank, clank, clank!" sounded the steel mall as it beat against the end of the bar held by Steve.

"Tap lighter," ordered the boy.

The sound of the blows grew fainter.

"That will do. We can poke out the opening after we step to one side. We shall then——"

"Bang!"

The mall struck the end of the dolly a terrific blow. The bar was driven through the thin shell of dolomite right into the hot metal of the furnace.

Like a projectile the dolly was wrenched from the hands of the Iron Boy. It was shot through the air, right past him at tremendous speed.

Steve was about to shout, "Stop it!" but he was too late. The bar of iron was soaring out over the mill yard. The head melter's voice was raised above the din. [181]

"Who did that? Who hit that bar?"

But Steve did not hear. For a brief second after the escape of the dolly he stood still on the bushing. With an angry hiss a stream of white hot metal shot past his head as though projected through the nozzle of a hose. It was a narrow escape, for, if the metal had struck him in the face, it would have gone clear through him.

A dull report sounded in the furnace itself.

"Look out for the flareback!" roared Pig-Iron Peel. "Run for it!"

Now a new sound smote their ears. It was a rumbling noise that seemed to start away down in the foundations of the blast furnace, working upward at a rapid rate.

Steve, who had quickly leaped from his dangerous position, glanced at the head melter inquiringly, as if to ask what this new thing might be.

"It's a hang-over!" shouted the melter. "Now we are in for it!"

CHAPTER XVIII

[182]

IN A FIERY RAIN

STEVE RUSH did not know what a hang-over might be. He had just had a practical demonstration of what a flareback was. This, however, he did not know was caused by an explosion of the molten metal, either from a stream of water touching it or a too sudden inrush of cool air. At any rate the metal in the furnace, just as the dolly was driven in, had suffered a partial explosion. The air was full of molten metal shooting in all directions. Some of the men back of where the monkey-man had been standing had been quite seriously burned in the explosion.

Steve, seeing three of them flattened on the platform, dashed in at the risk of his own life, dragging the men to positions of safety.

"Get under cover!" bellowed Pig-Iron. "Don't you know there's a hang-over?"

"What's a hang-over—what am I to look out for?" shouted Steve.

"That's an explosion at the top caused by a stoppage of the vents in the charge," explained Peel, as the two hurriedly crawled in under one of the huge heating stoves. "It'll be raining coke here, in a minute, till you can't see ten feet ahead of you."

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"An—an explosion at the top of the furnace, do you say?" gasped Rush.

"Yes. The whole business is blowing out of the top. Don't you hear it coming?"

The fiery rain of coke and ore had begun. It sounded like the roar of an approaching storm as it beat on the metal sides of the big stoves.

"But Jarvis is up there!" cried the Iron Boy, beginning to crawl from under the protecting stove.

"No, he ain't. Come back! You'll be killed. Why, you wouldn't stand any more show in that coke shower than you would to stand up under hot fire in battle, and perhaps not so much. Fellers do git through a battle without being hit. Nobody ever was in a coke shower who didn't git more or less hit, principally more."

"I tell you, Bob is up there. I must go——"

"No, he ain't."

"He isn't? Then where is he?"

"Oh, he got blowed off when the explosion—when the hang-over——"

"Blown off?"

"Sure. He couldn't hang on in a hang-over, could he?"

Rush groaned. He ventured to peer from under the stove, up into the air. The top of the furnace was a volcano in full eruption. Fire, smoke and coke were belching high up into the air, there spreading out like a great umbrella and raining down over a wide area.

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Pig-Iron reached out a hand, jerking Steve roughly back.

"Don't be a fool!" he growled.

"Do—do you think Jarvis is killed?"

"Most likely. Ought to be, if he isn't after getting that dose."

All at once Rush broke away from the head melter, darted to the iron ladder, and, regardless of the rain of coke, began running up the ladder. The boy got blow upon blow over head and shoulders, as the stuff beat down upon him, but he kept his head down and pluckily kept on up the ladder.

"Come back!" roared Pig-Iron, darting from cover at the risk of his life. But Steve was too far up the ladder to be seen from below. The head melter again bellowed his command to Rush to return.

In the meantime the boy had reached the top. Jarvis was not there. Steve cried out to him, but there was no response. With a catch in his breath, Rush turned and slid down the ladder to the base of the furnace. His head was cut and bleeding from the flying coke, and his shoulders were wounded in many different places.

Steve staggered rather than walked over to the stove where he dropped down.

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"Well, he ain't there, is he?" demanded Pig-Iron.

"No; he isn't there. Where—where do you think he is?"

"Most likely out in the yard somewhere. As soon as this black shower is over we'll go look for him. He's done for. Too bad, but them things will happen."

"I don't believe it!" answered the Iron Boy explosively. "It will take more than a hang-over to kill Bob Jarvis. You'll find he is all right. But, if that is so, I don't understand why he did not answer me when I called."

"I told you so. No use to cry over spilled coke. We'll pick him up pretty quick."

"There, the shower is letting up. Shall we go, now?" demanded Steve impatiently.

The melter stretched forth a hand, drawing it back quickly.

"Not yet! I don't propose to get my head cracked just for the sake of being in a hurry."

"Well, I am going, whether you are or not."

Rush crawled from under the stove and straightened up. The metal was still running from the furnace, most of it having spilled off into the yard, for instantly the hang-over occurred the train crew had fled. They knew full well what was coming, and every man of them instantly took to cover. The metal ran over the first ladle. Instantly the car under the ladle caught fire. In a few minutes the whole train was on fire. The engineer, who had deserted his post with the rest of them, rushed back at the risk of his life, uncoupled his engine and started it away, thus saving the engine from being seriously damaged.

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Rush raised his voice in a long shout for his companion.

"Bo-o-b! O-h-h-h, Bob!"

"Hi, hi, catch me down there!" howled a voice from the air. It sounded right over the head of Steve Rush.

Pig-Iron Peel heard it, too, and darted out. The two men glanced up into the air. They saw a human form shooting down one of the wire braces that extended up to the top of the stove to steady the metal chimney around which there was a network of the wires.

"It's Bob!" howled Rush beside himself with joy. "Help me catch him."

It was Bob, and he was descending at a rate of speed altogether too fast for either comfort or safety.

Steve leaped over to where the lower end of the guy-wire was anchored and braced himself to meet the shock. Peel sprang behind him.

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"It's Bob!" Cried Steve.

"Steady, now!" warned the melter.

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[]

"I'll catch you, Bob."

"Look out!" howled Jarvis.

His body seemed to leap from the wire. It landed against Steve Rush with the force of a catapult. Steve went over like a ninepin. Behind him Pig-Iron Peel shared the same fate, and in an instant the three were in a tangle.

Jarvis was the first to extricate himself. He leaped to his feet and began dancing about, howling lustily.

"What kind of a game is this that you've put me up against?" he yelled.

The boy, with arms and legs wrapped around the guy wire, had shot down from the top of the stove. He was angry all through, more angry than scared or even hurt.

"What kind of a game is it, I say?"

Rush and Pig-Iron were too busy picking themselves up from the floor where Jarvis's bump had landed them, to make reply.

"What's the matter with you fellows? Did I bowl you over? Well, it serves you right if I did."

"Bob," laughed Steve getting to his feet, "I knew nothing could do you up. You're too tough to be very badly hurt. What happened to you up there?"

"That's what I've come down here to find out. What happened down here? Was it an earthquake, or something of the sort?" [190]

"Something like that. Mr. Peel called it a hang-over up at your end."

"Hang-over? Pshaw! It was a fall-over, so far as I was concerned."

"How'd you git on that guy-wire?" demanded Peel, breaking into the conversation at this juncture. "The head of that is more'n twenty feet from where you were working?"

"I took the air-line route," grinned Jarvis.

"Tell us what happened?" urged Steve.

"I was working over the top. Something all of a sudden went wrong, and there didn't seem to be any smoke or anything coming out. I got up on the edge of the crater——"

"You mean the furnace?"

"I mean what I said. It was a crater, and don't you forget it—a real, live crater. You'd have thought so if you had seen it spit fire and lava. Well, about the time I got up on the edge, pouf! slam, bang! The whole insides of the volcano popped up in my face. I must have fallen over in, for the eruption lifted me right out again. I did another aviation act. I spread my planes and sailed through the air——"

"Was that—no, of course not. Where were you all the time from the explosion to just now, when you came down on the wire?"

"I was roosting on that flange up there near the top of the stove." [191]

"What? Thrown way over there?" exclaimed Steve.

"No; didn't I tell you I flew again? I'm getting to be an expert. First I flew over in the open-hearth building and landed on a girder. This time I tried a more ambitious flight, landing on a hot stove. All the stuff from the eruption fell down on me and woke me up after a little. I nearly fell off trying to reach the guy-wire that I knew was there. You know the rest. I took a slide down the wire that would have made a Japanese performer turn pale. Then you and I had a collision."

"Well," laughed Steve, "it's all over now, you can get back to work."

"What? Up there again?"

"Of course."

"No, siree! Not for Robert Jarvis. He knows when he has had enough. He can get into enough trouble right down here on the ground floor. He doesn't have to perch on the edge of a crater looking for trouble. Did anything happen down here?"

"What did happen?" questioned Steve, turning to the head melter.

"Flare-back and——"

"What caused it?"

"I don't rightly know——" [192]

"I know that your man on the rear end of the dolly nearly put an end to me by that last blow he struck with the mall. Whatever possessed him to do it!"

"He must have misunderstood you. That was a close call. Did the juice burn you?"

"It scorched my cheek a little as it went by," laughed Rush.

"What's that? Did you get singed again?" demanded Jarvis.

"Yes; a little. But we must expect those things in the steel mills."

"Hello, what's the matter over there?" cried Bob, running to the edge of the platform and looking down at the burning cars of the hot metal train.

Pig-Iron explained that a flare-back had flooded the place with molten metal, setting everything inflammable on fire.

The front of the furnace had been blown out and the platform was littered with debris, brick, sheet-iron, metal that was still glowing and which would continue to glow for hours before it became cold and gray. The place looked a wreck, though conditions were not nearly as bad as appeared to the inexperienced eye. There was little that could be done to clear away until the metal had cooled.

In the meantime, the head melter had sent one of his men to make a report of the occurrence to the superintendent of that division. [193]

"We will move over to number three. That is nearly ready to tap," announced Peel.

"If you don't mind I should like to ask a question or so before we start in," said Steve.

"Sure thing. What is it?"

"Did you see who was handling the mall when the dolly was hit that hard blow that did the business?"

"No. Why?"

"I should like to know."

"We will find out mighty quick. Say, you fellows over there, who was plugging the dolly?"

"Don't know," answered a voice.

"It was the relief man, Kalinski," answered another.

CHAPTER XIX

[194]

RUSH MAKES A SUGGESTION

"**K**ALINSKI!" exclaimed both boys.

"Come here!" commanded Peel.

The Pole came forward sulkily.

"Did you hit that dolly the whack that drove it through the dam?"

Kalinski nodded.

"Why did you do that?"

"He told me to," pointing to Steve.

"You are mistaken. I did nothing of the sort," answered Rush, his face flushing under his effort at self-control.

"You did!"

"Be careful," warned Rush.

"You know what Brodsky would say were he here?" spoke up Jarvis, thrusting his chin close to the face of the Pole. "He would say 'liar!' and I reckon he wouldn't be far from the truth at that."

"Look here, what about this thing? What are you getting at, Jarvis?" demanded Pig-Iron.

"This is the fellow who got us into trouble the other time and he is trying to get Steve in again. If he was the man driving home the dolly, whatever he did was done on purpose. Did he put Steve's life in danger?" [195]

"Nearly killed him. So you're the duffer, are you?" growled the melter. "Git out of this!"

Pig-Iron's voice grew to a roar. He made one leap toward the surly-faced Pole, planting a ponderous fist squarely between Kalinski's eyes.

"Git up!"

Kalinski did not rise, for the reason that he could not. Pig-Iron jerked the fellow to his feet, then knocked him clear across the platform.

"Don't hurt him. He has been punished enough," cried Steve.

"It would serve the brute right if I killed him," roared the melter.

Kalinski moaned, stirred, then got to his feet dizzily.

"I'll have you put out of the yards for this," he growled, turning slowly away.

Pig-Iron's right foot shot out. It caught the Pole fairly, lifting the fellow clear of the platform, hurling him headlong to the ground ten feet below.

"There, I guess that will hold him steady for a while. Don't you ever be caught around these furnaces again, unless you want me to finish the job," shouted the boss.

Steve's face wore a serious expression. Bob was grinning.

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"I wish Ignatz could have been here to see that," Jarvis said. "It was worth being blown off the roof to see. Say, Mr. Peel, if you ever have occasion to lambaste Watski again, just call to me. I want to see the fun. Wouldn't miss it for anything."

"All hands to number three," commanded the melter. "We're losing time. Daylight will be here almost before we know it now. We have lost one furnace full and we don't want to repeat the performance."

A few minutes later a cast was being made from number three. This time Bob worked on the gutters while Steve continued at his post as monkey-man, toiling in the burning heat, with parched, cracking lips and burning cheeks. Morning found all hands ready for home and bed.

"I wish I knew whether it would be right to see the superintendent," said Steve, as he was walking along with Mr. Peel on the way out.

"What for?"

"I think I have an idea that will perhaps make a great improvement in the furnace end of the business."

Pig-Iron laughed.

"Boy, there's bigger heads than yours that have been working on all the problems for a long time. What they haven't thought of you never would. But, if you think you've got an idea in your head, just go see the super, and get it off your mind. I know how you feel."

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"Thank you; it isn't troubling me to that extent."

Pig-Iron first went to the offices of the company to make his personal report of the hang-over and the flare-back that had so upset their night's work. He made his report to Superintendent Keating direct, as was the custom after the formal report had been made to the division superintendent.

Mr. Keating asked Peel about the Iron Boys, whereupon Pig-Iron, in his blunt way, told the general superintendent about Steve's plucky fight for the mastery of himself before the furnace and of his eventual winning out. He told the official some further facts that interested Mr. Keating very much.

About four o'clock that afternoon as the Iron Boys were eating their breakfasts, or in this case their dinners, a messenger called at the Brodsky house with an order for Steve Rush to call at the office of the superintendent before he went to the mills to work.

Rush did not know what was wanted, of course, but this time he did not believe he was being called up to be criticized. He hurried through his meal, and, making himself presentable, walked over to the offices. In due time he was admitted. Mr. Keating greeted him cordially. He was courteous to all of his men until they showed themselves unworthy of that courtesy. In such cases the superintendent was curt and brief in what he had to say and he did not smile into their faces as he talked to them.

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A pleasant smile wreathed his countenance this afternoon.

"Your head melter has been in to-day, Rush," he said.

"Yes, sir?"

"He had some very pleasant things to say about you and Jarvis, in his rough way. I assure you I was very glad to hear that you are doing so well. I was sure you would. You have the pluck and you will make your way to better things, in the steel business. Neither of you was hurt last night, were you?"

"Not at all, sir."

"Mr. Peel tells me, among other things, that you have an idea for an improvement of some sort about the furnaces," said Mr. Keating, with a rare twinkle in his eyes.

Steve flushed.

"I thought I had. He rather made fun of me for even thinking I had an idea."

"And you therefore dropped it, eh?"

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"No, sir. It is stronger than ever."

"That's the way to talk. Do not allow yourself to be swerved from a worthy purpose."

"I never do. It results in my being called hard-headed sometimes."

"We like to encourage our young men to make suggestions. Unfortunately we do not get many of value from the rank and file. Those men either have not had experience enough to suggest valuable improvements, or else they are of too low an order of intelligence to do so. What was your idea?"

"It was in connection with the waste gas from the stoves."

"Indeed." Mr. Keating was interested at once.

"Yes, sir; there is a great deal of waste gas, is there not?"

"Much more than I wish there was."

"You buy your gas from the city plant, do you not, if it is not an impertinent question?"

"We do."

"And it must cost you a great deal of money."

"It does."

"Have you ever thought of any way to avoid the waste of so much of it from the furnaces, then?"

"We certainly have, my lad." [200]

"May I ask how you have tried to utilize it?"

"We have tried to devise some system by which it might all be consumed in the heating stoves. This, thus far has appeared impracticable for the reason that, by holding it in the furnaces we were likely to get a serious blow-out some time."

"That is the only way in which you have tried to use it?"

"Yes. Was your suggestion along this line?"

"Not exactly."

"How then?"

"I may be foolish, sir, but it struck me that the waste gas might be used to operate some sort of machinery in the mills."

"Hm-m-m!" reflected Mr. Keating, not fully catching the drift of the Iron Boy's suggestion. "What machinery?"

"I visited the gas engines a few days ago, and I was very much interested in them. I took the liberty of inquiring how much gas was used to run them, and when I got home I figured it down to dollars. It came to a very large figure."

"You are getting into the business deeply, young man."

"Perhaps I had no business to do so, but I was interested."

"Go on; what do you propose?" [201]

"My idea is that you might run part or all of those gas engines with the waste from your blast furnaces, sir," answered Rush boldly.

"Hm-mm!"

Mr. Keating was surveying his caller quizzically. Steve looked him steadily in the eyes.

"How did you happen to get that idea?"

"It came to me when my friend Jarvis was complaining about the gases up on the charging platform. I do not know whether the idea is of any value to you. You are welcome to it if it is."

"We will discuss that phase of it later," answered Mr. Keating, somewhat sharply.

"You see, I have something of a personal interest in saving money. I am a sort of stockholder in the Steel Corporation."

"You are?" exclaimed Mr. Keating, plainly showing his surprise.

"Yes, sir; my friend and myself hold a few thousand dollars of the company's stock, on which we are drawing dividends."

"May I ask where you got the stock?"

"The officials of the Cousin Jack Mine gave us some, and with money that Mr. Carrhart gave us we bought some more. We are going to load up on steel with the money we earn hereafter," answered the boy proudly.

Mr. Keating laughed heartily. [202]

"You won't buy very much on the wages you are getting here at present," he said.

"No, sir; not much, but we are not always going to work for the wages we are now drawing."

"You are right you are not. Let me ask how you would get the waste gas to the gas engines. Have you thought of that?"

"Yes, sir. Pipe it."

Mr. Keating rose, and stepping to the door of an adjoining office, called:

"Mr. Phillips, will you be good enough to come in here?"

The chief engineer of the mills entered the room in response to the summons.

CHAPTER XX

[203]

THE CHIEF EXPRESSES HIMSELF

"**P**HILLIPS, this is young Rush, Steve Rush."

The chief engineer nodded, shooting a quick glance at the Iron Boy, after which he fixed his eyes on the face of the superintendent.

"Rush and a friend of his, named Jarvis, have come down from the mines. They are learning the business with the intention of making it their life work. Is that not it, Rush?"

"Yes, sir."

"Mr. Carrhart has recommended them very highly, and I am beginning to learn that his recommendation was well within the facts. These boys have heads on them, Phillips. You are wondering what I am getting at, I see. Rush is working on the blast furnaces. Let's see, what are you doing there?" asked Mr. Keating, with a twinkle in his eyes.

"I am the monkey-man on number four, sir, where there was a blow-out last night."

An amused smile flitted over the face of Mr. Phillips at the announcement. He was not taking the interview very seriously, as Steve quickly observed.

"The young man has had other blow-outs, but he bears a charmed life, I am inclined to think. Let's see, you were blown to the roof in the pit explosion in the open-hearth building, were you not!"

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"No, sir; that was Bob Jarvis."

"Oh, yes; you were the man who was in the other pit. I remember now."

Steve nodded. He did not particularly like the personal trend of the conversation. It embarrassed him. He wanted to change the subject, but he knew Mr. Keating well enough to understand that the general superintendent must first indulge in his little pleasantries before getting down to business.

"And what is more, Phillips, they are both stockholders in the company. What do you think of that for a couple of youngsters working for a dollar a day?" demanded Steve's torturer triumphantly.

The chief engineer smiled more broadly now.

"Very remarkable, Mr. Keating. Regular infant prodigies." He was wondering, by this time, what the superintendent was getting at, knowing that there was some purpose behind Mr. Keating's good-natured raillery.

"Did you wish me to make a place for them?"

"I am afraid they would not accept if you did."

"Oh!"

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"Rush has an idea that he can save us some money. He has told me what his suggestion is, and now I want him to repeat it to you. Go ahead, Steve, and tell Mr. Phillips what you have said to me."

This was different. It had been comparatively easy for the boy to tell his story in the first place, because it was backed by his enthusiasm. That enthusiasm had in a measure been squeezed out of him by Mr. Keating's jesting remarks. Steve plucked up courage, gazing straight at the now cold, inquiring eyes of the chief engineer.

"My suggestion is for the utilization of the waste gases from the stoves at the blast furnaces across the river," announced the boy.

"Indeed?"

"Yes, sir."

"Let me hear your ideas on the subject."

Rush began at first haltingly, then warming to his subject as he went on, repeating very nearly in the same words, what he already had told the superintendent. As he progressed real interest began to dawn in the eyes of the chief engineer. Now and then he would halt the boy to ask a question, but the interruptions were of such a nature as not to disturb Steve. At last the Iron Boy came to a conclusion.

"Beyond that, sir, I cannot go just now, not having the requisite technical knowledge. All that I have suggested may not amount to much," he added with a smile. [206]

"It will do very well for an apprentice," nodded the engineer, with a significant glance at Mr. Keating. "What do you think about it?"

"Very remarkable."

"You say you would convey this waste gas to the gas engines?"

"Yes, sir."

"Do you know where they are?"

"Yes, sir; on this side of the river."

"How would you get it over here?"

"Through pipes, of course. The gas would lose none of its virtue in transit. It is carried much further than that to the mills already. It strikes me that gas from other parts of the yards might be conveyed to the leader pipe in the same way, and thus give you enough gas to run your engines without having to draw further on the city supply."

"How would you carry these pipes across the river—under water?" asked the engineer.

"No, sir; the pipes would rust through, would they not, and give you a lot of trouble?"

Mr. Phillips nodded.

"Your idea is correct."

"I should elevate them over the river." [207]

"If there are any other intricate problems that you are unable to work out, Phillips, just call on my boys," laughed Mr. Keating.

"Yes; I am inclined to that belief myself. Have you an hour that you can spare, Mr. Keating?"

"Certainly. There is nothing more to be done here this afternoon."

"How about you, Rush?"

"I have to report for duty within the hour."

"What is it you want, Phillips?"

"I was about to suggest that Rush accompany us over to the furnaces, but if he has to report for the night trick there will not be time."

"We will attend to that part of it. You will want to return home, of course, to change your clothes before going to work?"

"Yes, sir," Steve nodded.

The superintendent pushed a button and one of his clerks responded.

"Send word to the head melter of number four blast that Mr. Rush will not be on duty this evening, on the superintendent's order; that the young man is engaged on another matter for me," directed Mr. Keating.

Steve's eyes glowed, not because he did not have to work, but because there seemed reason to believe that the plan he had so carefully thought out was going to be seriously considered both by the superintendent and the chief engineer of the great steel works. [208]

"That disposes of all your objections, doesn't it, Rush?" asked Mr. Keating.

"It disposes of the obstacles. I had no objections," smiled the Iron Boy.

"I stand corrected, sir," said Mr. Keating. "We will start if you are ready, Phillips."

"As soon as I get my hat. I will join you on the outside."

A few moments later they were walking briskly along toward the yards, Mr. Keating and the engineer together, Steve a little in advance of them.

"What do you think of my young man?" asked Mr. Keating.

"Rush? He is a very bright young fellow. You say he came down from the iron range?"

"Yes, he and his friend Jarvis, I am told, were forging rapidly toward the front there. They shipped on an ore boat to learn that part of the business and then came down here to enter the

mills. From a salary of more than a hundred dollars a month the boys are now receiving the munificent wage of a dollar a day. You do not need to know anything more than that about them, do you?"

"No; that should be sufficient to establish their sincerity of purpose."

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"I should say so," emphasized the superintendent. "What do you think of Rush's proposal?"

"I can answer that question better after I have looked over the ground and figured on the proposal a little."

"It is a wonder we never thought of it before."

"It is. Still, many important discoveries have been made by persons unfamiliar with the subject, as against the experiments of years by men trained to that particular profession."

"See here, Phillips, don't you try to throw cold water on the achievements of my boys. I won't have it."

"Not at all, not at all. When I am convinced that the boy has suggested a good thing I shall be just as enthusiastic as you are over it."

"You professional men are a cold-blooded lot, aren't you?"

"Do you wish to cross the metal bridge, or to go around the long way?" interrupted Steve halting to permit them to catch up with him.

"We will take the bridge," answered the superintendent. "The hour is getting late and we have quite a little to look over before dark."

Steve had already turned and was striding toward the bridge. As they reached it a metal train was just approaching. The Iron Boy halted to wait for the two men to come up, whereupon he fell in behind them, not for any particular reason, but because some instinct told him to do so.

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Mr. Keating and Mr. Phillips were engaged in earnest conversation discussing the plan proposed by Steve, so that they did not take particular notice of what was going on about them. They were used to walking along the narrow footpath by the side of the tracks on the bridge that hung high over the river, so that neither man was timid. They raised their voices to make themselves heard above the thunder of the hot metal train, as with its load of red hot pig-iron, it hurried on.

The middle of the train was just abreast of them when Rush's quick eyes saw one of the big red molds swaying dangerously. This he could not understand, for the molds were supposed to be bolted to the cars, which was the case with all of the molds used in the transit of the pig-iron to the refining open-hearth furnaces.

Steve watched the swaying mold as the train rolled along. Suddenly the flat car bearing this particular mold, lurched sideways. For one breathless instant the red hot pig of iron hung motionless then plunged from the car. Steve Rush was no longer inactive. The indecision that had suddenly taken possession of him, left him on the second.

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"Look out!" shouted the boy.

Mr. Keating turned sharply to see what the lad wanted. He knew that some danger menaced them, but he did not know the nature of that danger.

There was no time for explanations. A second would mean serious, if not fatal, injury to the two men.

The Iron Boy darted forward. Both hands were thrust forward, and with a mighty push he sent the chief engineer and the general superintendent of the mills staggering forward. They fell flat on the narrow footpath. At the same time Steve lost his balance and fell, right in the path of the five-ton mold of red hot iron. Yet the Iron Boy's presence of mind did not leave him for a second.

The bar of pig struck the planking of the footpath, went through it as if the planking had been paper and a few seconds later, hit the waters of the Monongahela, with a mighty splash from which a cloud of steam rose in the air.

The two men picked themselves up quickly.

"What is it? What does it mean?" demanded Mr. Phillips angrily. "Who pushed me? Who pushed *us*?"

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"The boy who saved our lives," answered the superintendent. "Don't you see what happened?"

"No; I will confess that I do not. Something happened to the train, did it not?"

"A pig fell off, mold and all. It is down at the bottom of the river, now, as you can see by glancing down there at the cloud of steam."

Mr. Phillip's face paled. He was used to narrow escapes, but this was the narrowest of all in his wide experience.

"Is—is it possible?" he gasped.

"It is a wonder that it didn't derail the whole train. We certainly should have met our finish if that

had been the case."

"It was a rare exhibition of presence of mind. I never saw anything like it in my life."

"It was, indeed."

"But where is the boy Rush?"

"Whe—where—where——" breathed the superintendent, his face slowly blanching. "I declare, Phillips, he must have been caught under the pig and carried down to his death!"

The chief engineer shook his head sadly, leaning over the rail without a word as he gazed down into the river with averted face, that his companion might not see his emotion.

CHAPTER XXI

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RAKED BY THE "PIG"

"**L**OOK!" shouted Mr. Phillips.

Far down below them the head of a man bobbed out of the water as the cloud of steam drifted slowly away.

"What is it?"

"There's somebody in the river."

"It's Rush. Where is he?"

Mr. Keating was greatly excited. He ran here and there, hoping to get a clearer view of the water.

"There, there!"

"Rush! Rush! Is that you?" he called with hands to mouth.

An arm was raised from the water and waved at them.

"It's he! He's safe, he's safe, Phillips!" cried the superintendent, dancing about excitedly.

"Look out, Keating! What's the matter with you? You'll have us both in the river, the first thing you know."

The two gray-haired men shook hands, patted each other on the shoulder and laughed like schoolboys in the excess of their joy.

"Can you swim?" called the superintendent.

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"Yes, I'll meet you on the other side," was the reply faintly borne to their ears.

"Come on, Phillips." Mr. Keating started on a run for the other side of the river, for which Rush was swimming steadily. The banks were high and steep on the far side, but there was an excellent beach, so that the Iron Boy had no difficulty in making a landing. He was obliged, however, to go around for some distance before finding a place to climb to the top.

Arriving finally, Steve found the superintendent and chief engineer pacing up and down the bank waiting for him. They grasped the lad's hands, each seeking to outdo the other in expressing their appreciation of what he had done.

"But what is troubling us is to understand how you were carried down by that pig and yet not killed?" questioned Mr. Keating.

"The pig did not carry me down."

"It didn't?"

"Certainly not. This is the only place the pig touched me."

Steve exhibited a rent in his lower trousers' leg on the right side, and parting this showed them a burn right down the leg. The burn looked an inch deep.

"Man alive, you must get to the hospital as quickly as you can!" commanded the superintendent.

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"Look!" Shouted Mr. Phillips.

"Yes, I should think I were about finished if I had such a burn as that. The pig raked you there, didn't it?" asked Mr. Phillips. [216]

"Yes, sir. But it doesn't matter much. It smarts a little, that is all. It isn't the first time I have been burned. Shall we go on to the furnaces?"

"We certainly shall not," emphasized Mr. Keating. "You are going to the hospital and have that wound dressed before you get it ground full of dirt and contract blood-poisoning. We will stop in here at Mr. McNaughton's office."

Steve did not want them to give so much attention to him. He was anxious to get to the furnaces and talk over his plan with the chief engineer and the superintendent. Instead, the superintendent was at that moment telephoning to the company's hospital, ordering a surgeon to come to the division superintendent's office to dress a burn.

The three sat down to talk while awaiting the surgeon. Of course Steve steered the conversation around to the plan he had proposed. Mr. Keating watched the boy's face narrowly. He could not understand how Rush could sit there so calmly and indifferently with a wound such as he had, but the only indication that the Iron Boy felt the slightest discomfort was a twitching of his face, now and then, as sharp pains shot through the wound. [218]

"You haven't told us yet, how you got out from under the pig, Rush," questioned Mr. Phillips. "To me that was a most remarkable escape."

"Not so very. I did the only thing I could do under the circumstances. I dived through the ties under the car. I did not dare jump in either of the other three directions for fear the mold would fall on me. The train was still moving, so it was a question of taking a chance of being run over by the train or hit by the pig. I decided to take a chance under the train. Did you see me drop?" asked Steve with a laugh.

"No; we did not."

"I must have made an exhibition of myself. I turned so many somersaults going down that I lost myself completely. It was a clumsy tumble."

The two officials looked at each other wonderingly. At that juncture, Mr. McNaughton broke in.

"Here's a suit of jeans you can put on if you wish, Rush," he said. "You look like a half drowned hen. The jeans are clean."

"Thank you; I will put them on," answered Steve gratefully. "These wet clothes feel rather uncomfortable against the skin. I shall have to do without underclothes until I get home, I guess. Where shall I change?" [219]

"Go in the wash room there."

Mr. Phillips mopped his brow after Steve had left the room, then moved over near the electric fan. Mr. Keating was regarding him with an amused smile.

"Rather surprised you, eh?"

"Keating, that boy has the most remarkable courage of any person I ever saw. It is a courage born of his intelligence. I wish you would let me have him in my department."

The general superintendent shook his head.

"I doubt very much if he would take the position. As I told you, he wishes to learn the mill business, and you and I know that there is only one way to do that—to work like a slave, toil from morning till night, doing the work with one's own hands. That is the way you and I learned the business."

"Yes, but you must recollect the work wasn't the same in those days. We didn't endure the hardships that the men of to-day endure. Do you object to my asking Rush if he would like to step into the engineering department?"

"Certainly not. I should be glad to see him with you."

Steve came out in his clean jeans, looking as fresh and cheerful as if he had not just passed through such a thrilling experience. The boy's eyes were bright and his face wore a pleasant smile. [220]

"How do you feel?" asked both men at once.

"I never felt better, thank you," answered Rush. "Here comes the doctor."

The surgeon examined the wound, shaking his head as he finished.

"You had better go to the hospital and lay up for a day. That is a bad burn, Rush."

"Oh, I couldn't think of it. Dress it right here, and be as quick about it as you can, won't you? I've got business on hand this afternoon."

"The business will keep," retorted Mr. Keating. "You had better do as the doctor suggests."

"I hope you will not insist upon that, Mr. Keating. I do not want to lie up. I shall feel much better if I am busy, and if the wound is well bandaged no dirt can get in it."

"Is it safe, doctor?" questioned the superintendent.

"Well, yes, if nothing comes of it," was the equivocal reply.

"Very well; patch him up. Have your own way, Rush. I suppose you would do that anyway. You are a very headstrong young man."

"I have been told that before, sir, though I do not intend to be headstrong." [221]

"No, I understand. You just can't help it; that's all."

While his wound was being dressed Steve joined in the conversation of the officials, though the dressing of the wound hurt him dreadfully. Once or twice he winced, his voice hesitated; then he went on apparently oblivious to what the surgeon was doing.

None of this was lost on the general superintendent and his chief engineer, and though Steve Rush did not know it, he was making capital for himself at a very rapid rate.

At last, the dressing of the wound having been finished, Steve rose, announcing himself as ready to accompany them.

"I am sorry to have delayed you so, gentlemen," he said politely.

"Pshaw!" grunted the superintendent. "It wasn't you, but the pig that was responsible for the delay. You are responsible for our being alive at the present moment. As to whether that is a matter for congratulation, there might be a difference of opinion."

The men and the boy left the division superintendent's office laughing happily, and though Steve Rush was a humble apprentice in the mills, these men treated him as an equal, which they knew him to be. The trio proceeded directly to the furnaces. Though the hour was late they went immediately at the business that had brought them there. Their first work was to examine the furnace stoves, to decide where changes would have to be made if it were decided to adopt the new plan. To do this all three climbed to the top of one of the stoves. [221]

"Where was it your idea to make your connections, Rush?" asked the chief engineer. "This might not be a bad place at the top."

"You know best, but I think I should begin up here with the pipe connection, carrying the pipe down to the bottom of the stove, with frequent intakes. There will be no danger of fire getting into the pipe, will there?"

"No; that can be guarded against, unless there should be an explosion, against which we cannot protect ourselves."

"It seems to me that an automatic valve might be invented that would shut off the feed pipe in case of an explosion."

"That is an excellent idea. Suppose you try it?" [222]

"Oh, I am afraid I couldn't do that. I am not a mechanic."

"Try it," replied the engineer.

The officials talked rapidly for the next few minutes, as darkness was fast settling down over the yards, and the flame from the furnaces began to cast shadows here and there. Much of the conversation was so technical that Steve could only surmise what the men were talking about. At last they concluded their discussion and started away. Steve was left at the exit from the yards, from where he proceeded on to his boarding place. [223]

"Well, Phillips, now that we have gone over this thing, what do you think about it? Can it be made to work out as Rush believes it will?"

"Keating, it is the most practicable plan for the utilization of the waste gas that has ever been suggested to me. I see no reason, now, why we should not adopt it, nor why the company should not be saved thousands of dollars a year through the change," was the emphatic reply.

CHAPTER XXII

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DIRECTORS GET A SHOCK

ON the following morning the plans of the furnaces were taken to the office of the general superintendent, where he and the chief engineer went into earnest consultation. The result of the conversation was that draughtsmen were called in, and the plan made as clear to them as possible, so that they might prepare rough drawings of the proposed change.

These rough drawings were submitted late that afternoon, and Rush was sent for to report at the superintendent's office. Together the three went over the plans in detail.

"Have you anything to suggest?" asked the engineer, after explaining the drawings.

Steve had some slight changes to suggest, but in the main his ideas had been fairly well followed out by the draughtsmen. He did suggest, however, that the action should be not hasty; that perhaps defects would develop if they should take more time for consideration.

Both officials agreed that this was wise, and besides it was thought best to lay the whole matter before the directors for their approval or disapproval.

A week passed, during which time many changes were made and new drawings and blueprints prepared. Steve had gone back to his work at the furnace, where he and Bob worked faithfully, becoming more and more familiar with the particular branch of the steel industry with which they were connected. The meeting of the directors was to take place at the end of that week, and Mr. Keating requested Steve to be present. This Steve did not wish to do. It seemed to him like crowding himself on the attention of the president of the steel company, as well as the other officials who would be present. [225]

The superintendent, seeing how reluctant the boy was to attend the meeting, withdrew his request, as there was no real necessity for Steve's being there. Mr. Keating had hoped to do just what Rush did not wish him to—call the attention of the officials sharply to the Iron Boy.

"You are too modest, young man," said Mr. Keating with a laugh. "But I shall see that you lose nothing by being so. I am going to tell the directors plainly that you are wholly responsible for the plan, of which none of us ever had thought, and I am going to suggest that you be appointed to a place worth while."

"Not until I have earned it," answered Steve with emphasis.

"It strikes me that you have already earned promotion, young man." [226]

"I do not mean it in that way, I mean that I do not wish promotion until I have passed through all the successive stages and learned the steel business from the bottom to the top. I expect I shall be about ready to die by that time," added the boy, with a faint smile. "There is a great deal more to learn than I had the least idea of."

"You are making rapid progress, I must say."

"If you wish to transfer me to some other department on the first of the month I shall appreciate the favor. I am, to a certain extent, familiar with the furnaces and I want to keep moving, sir."

"It shall be done. I had intended to do so without your request. I am glad, however, to have you make even a small request of me."

The meeting of the directors was a lengthy one. Their interest was aroused at once when the chief engineer rose and told them of the plans for utilizing the waste gas from the furnace stoves. He was assailed by questions from all sides. The directors were progressive men, and they quickly realized the value of the suggestion if it could be applied.

The question of the cost was taken up and this Mr. Phillips had figured down to the minutest detail. He was enabled to tell them that, barring accidents, the cost of the construction and material would reach a certain figure. [227]

After listening, the directors adopted the suggestions entire. One of them rose and proposed a vote of thanks to the chief engineer and to the superintendent.

Mr. Keating was on his feet at once.

"Gentlemen, while we appreciate your kindness it would be unfair for Mr. Phillips and myself to assume the credit for the plans you have passed upon this afternoon. Mr. Phillips will verify what I say when I tell you that the suggestion did not come from us. Frankly, we had never thought of it; perhaps never should have thought of it. The credit belongs to some one else."

"Who is he?" asked one of the directors.

"A young apprentice in the mills. His name is Rush, Stephen Rush. The whole idea is his own almost exactly as has been adopted by yourselves. He is a furnace man at number four, he and his friend, a boy named Jarvis, also a remarkable young man."

"Then we must do something for this young fellow. His suggestion is a good one. Do you think he realizes how valuable it is?"

"Oh, yes," answered Mr. Keating with a smile. "He was well aware of that before he made the suggestion. It was its value to the mills that led him to offer it." [228]

"How much does he want?" questioned the director.

"Nothing, so far as I know. He is not that kind."

"Then I will propose," said the director rather pompously, "that we make the young gentleman a present of fifty dollars in gold. That ought to be a whole lot of money for him."

"Oughtn't we to make it more than that?" asked another of the board. "It seems like a rather small sum for the service rendered, seeing that we shall save thousands of dollars a year by the process."

"No; it is a great plenty. That's the way to spoil these young fellows. They get an exaggerated idea of their importance."

"I beg your pardon; these boys do not," interrupted the general superintendent, though it was not his place to interfere. "It will take more than fifty dollars in gold to spoil either of them."

"It's enough. It is a very fine present, and the boy will be delighted with it, you see if he isn't."

The directors voted to make Steve Rush a present as proposed by the member of the board who had fixed the amount. Mr. Keating glanced significantly at the chief engineer, and the chief engineer glanced significantly at the superintendent. [229]

It was decided that the work should be begun at once. All the material for the purpose was in stock in the mills, save the cement for the concrete abutment out in the middle of the river. It was necessary to construct this to hold up the heavy pipe that was to convey the gas across the river to operate the gas engines.

Practically all of the further details were left to Mr. Keating and Mr. Phillips, for the two men possessed the entire confidence of the board, as was naturally the case. They would not have been in their responsible positions had they not been tried and true men.

The superintendent was ordered to hand Steve Rush the money as voted by the board, and for the purpose of carrying out his orders Mr. Keating summoned Steve to the office after the board meeting.

The lad reported. He was called in to the private office before all the directors had left. The president of the corporation was there, the secretary and two directors. They looked at the manly young fellow with more than ordinary interest. Mr. Keating introduced Steve to them.

"What, that young gentleman a furnace hand? Impossible!" exclaimed the president. "Why, he appears like a man of culture and education. I wonder how he will take the fifty dollar proposition?" [230]

He was soon to learn. Mr. Keating rose and proceeded to express the thanks of the board of directors for Steve Rush's great service to the company, to all of which the boy listened attentively, but without emotion, looking the superintendent steadily in the eyes.

"I am instructed by the board, Rush, to ask you to accept a slight token of their appreciation. Here are fifty dollars in gold that the board has voted to you. I hope you will take it in the same spirit in which it is offered."

Steve never knew whether the superintendent meant to be sarcastic or not, but the boy was inclined to think not under the circumstances. Rush drew himself up, his shoulders squared back a little further than was their wont, while a faint color suffused his cheeks.

"I thank you, gentlemen, but I cannot accept it."

"Not accept it?" demanded the secretary. "Perhaps it is not enough to suit you, sir?"

There was sarcasm in the tone of the secretary, certainly. His associates gave him a glance of disapproval. Steve turned toward him with the same steady gaze that he had fixed on the [231]

superintendent during the latter's remarks.

"Sir, were I the kind of man who was looking for that sort of reward, fifty dollars certainly would be considered inadequate when one considers that the new plan will save your company thousands of dollars."

The directors started back in surprise. Such words as these, from an employé, were unusual to say the least.

"Then—then you want more money, eh?" almost shouted the secretary. "So that's where the shoe pinches, is it?"

"No, sir; the shoe doesn't pinch at all. I am paid by this company for my services, paid the same as my fellow-workers are paid. If, in the course of my employment, I am able to make any improvements or to suggest improvements that will better the service, I consider that such suggestions or improvements are wholly the property of my employer. I am neither entitled to nor wish additional pay for them. Believe me, gentlemen, I should not be backward about asking for what I thought rightfully belonged to me. I hope none of you will misunderstand me. May I retire, sir?" he added, turning questioningly to Mr. Keating.

The superintendent nodded. Steve's bold stand had frustrated Mr. Keating as well as the others. For a few seconds after Rush's departure no one spoke; then, all at once the president burst out laughing. [232]

"That's the time you met your match, I am thinking, Conkling."

"An impudent young rascal!" exploded the secretary. "To think he would dare stand there and insult us in that fashion. It was the most outrageous thing I ever heard of."

"Wait; hold on, Conkling," protested the president.

"I demand his discharge. We don't want a man like that in our employ."

"Now don't get excited. Are we going to let a monkey-man from furnace four involve this board in a fight?" The president's eyes twinkled merrily. He was enjoying the situation.

"I—I don't care; he must be discharged."

"On the contrary, Conkling, he will stay. That young man is just the kind of man we want here."

The superintendent spoke with considerable emphasis.

"What he says is true, Conkling, so far as the fifty dollars is concerned," continued the president. "Had I known what sort of boy we had to deal with I certainly should have insisted on your voting him more money or else none at all." [233]

"He would not have accepted it under the circumstances," interrupted Mr. Keating.

"No; that is quite evident, and I respect him for his position. You must admit, gentlemen, that Rush's viewpoint is somewhat unusual these days. How much is he earning, Keating?"

"His wages are a dollar a day."

"Then promote him at once."

"I have offered to, but he doesn't want it. He is working his way up, and desires to follow the same course that any one does in going through the mills. Mr. Carrhart is responsible for his being here. He takes a very keen interest in both boys."

"Oh, he does, eh?"

"Yes, sir. The young men are not in want. Each of them own several thousand dollars worth of stock in this company."

"What?" almost shrieked the secretary who had not yet recovered his equilibrium.

The president laughed uproariously.

"This is too good. Here we've been voting a paltry fifty dollars to a man who is practically entitled to call us to account for so doing. We are his employés as much as he is ours. This is too good! I shall have to tell that story at the club," and the president indulged in another burst of laughter. [234]

No one enjoyed the discomfiture of the secretary more than Mr. Keating and Mr. Phillips. The faces of both men bore smiles that they were unable to hide. The directors left soon after that. In going out, the president approached the superintendent.

"Keating, I hope you will look out for that young man."

"You may depend upon my doing so. I already have taken a great interest in both of them."

"I suppose I ought to order you to dismiss him, for if we men don't look out he'll be grabbing our own jobs some of these days."

The president went away, chuckling at his own witticism. After they had gone the two dignified men, namely, Superintendent Keating and Chief Engineer Phillips leaned back in their chairs and

CHAPTER XXIII

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AN UNLOOKED-FOR PROMOTION

SEVERAL days later, Steve and Bob were invited to the home of the chief engineer to spend the evening and to take dinner with him. They were greatly surprised at the invitation. At the same time they were informed that permission had been obtained from the superintendent for them to remain away from their work.

The Iron Boys were pleased, yet they did not exactly like the idea of losing a night's work. They were not there for social reasons; they were at the mills for a well-defined purpose—a purpose with which nothing must interfere.

The boys talked over the invitation for some time before finally deciding to accept. Steve thought that perhaps it were best. Mr. Phillips had taken such a kindly interest in them. The boys valued the friendship of the chief engineer and the superintendent, and they were beginning to look to the latter for advice and suggestions relating to their personal affairs.

"All right; we will go," decided Rush. "Behave yourself, Bob," he warned.

"Don't I always?" demanded Jarvis.

"You're open to suspicion, at times."

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That night found them at Mr. Phillips' home, dressed in their best. Their host was justly proud of his young guests. He introduced them to his family, consisting of his wife and two daughters; and the Iron Boys appeared as much at their ease as though quite used to going out in society. They surprised even Mr. Phillips. Bob Jarvis never had appeared to better advantage, though he had not yet grown a fresh crop of eyebrows since his entanglement with the hang-over at the top of number four.

After dinner the boys were invited to the engineer's library, where the blue prints of the new plan lay spread out on a flat-top desk. Steve recognized them at once, and he drew the swift conclusion that their invitation there that evening had to do with the proposed improvements.

Cigars were brought out and offered to the boys, which they politely declined, whereat Mr. Phillips nodded approvingly.

"There are a few questions I should like to ask you about certain phases of this work," he said sitting down and drawing the blue prints toward him.

Steve and Bob stepped up to the desk. Mr. Phillips asked them how they would guard against this or that contingency; how many men could work to advantage, and questions that Steve Rush knew very well the chief engineer could answer better than they possibly could.

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"He's putting us out on the firing line for some reason," thought the boy. "He is getting at something. I wonder what it is?"

Jarvis was beginning to arrive at the same conclusion, for Bob was a shrewd boy, too, and could read between the lines, if the lines were not too close together.

Other questions of a similar nature were asked, all of which the boys answered, discussing the work intelligently and to the point.

From that the engineer went on to a discussion of the mines where the Iron Boys had been employed before coming to Steelburgh. Little by little he drew out the story of their work and experiences on the iron range in the north country. He became deeply interested, and before the lads realized that they had done so, the story of their career, up to the present, had been told.

"Then you both have had experience in managing men?" he asked.

"Yes, sir," answered Steve.

"I am glad of it, for it makes easier what I wish to do. My invitation to-night was not wholly without purpose."

"I am aware of that, sir," smiled Rush.

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"Oh, you are, eh?"

"Yes, sir."

"What is my purpose?"

"I am sure I don't know. I knew you were drawing us out for some reason. I did wonder what it was."

"You are shrewd. Yes, I have been drawing you out, partly because I knew your story was an interesting one, and also because it might have a bearing on what I had in mind."

"Yes, sir."

"Would you lads consider dropping your mill work for a time?"

"What to do, sir?"

"To help put through this new plan of yours, to come directly to the point. When the work is finished you may return to your mill jobs if you wish, though I should like to make a proposition to you to join my department. There is a prosperous future in it."

Steve reflected over what the engineer had said. There were reasons why he wanted to accept, and others why he did not believe it would be wise. Jarvis left the whole matter in the hands of his companion, and he said so when Steve asked him for his ideas on the subject.

"Very well, Mr. Phillips; if you think we shall be of any service to you we shall be glad to aid you to the best of our ability. I am afraid you are overrating our abilities. This will be new work for us and the probabilities are that we shall not make a very brilliant success of it." [239]

"I am willing to take the risk. You don't ask what I want you to do?" smiled the chief engineer.

"It doesn't matter. Whatever you think we can do best we will gladly do."

"That's the sort of talk that I like to hear. I'll tell you what I wish you to do. I am going to make you two young men foremen in full charge of the work, under myself and my assistant engineers, of course. How does the proposition strike you."

"Why—why, Mr. Phillips," stammered Steve.

"This is so sudden," murmured Jarvis under his breath; but the chief engineer heard him and laughed, much to Bob's confusion.

"I am afraid you have given us a rather large contract, sir," continued Rush. "Don't you think you could find some one much better fitted for the work than we are?"

"I am taking all the chances. That I am willing to do so should be evidence to you that I know what I am doing."

"Very good, sir; we shall do our best to merit your confidence. Is there any time limit on the work?" [240]

"That is the point exactly. The work must be done within the next two weeks. The board has fixed that time limit. Now that they find they will be able to save money by the new arrangement, they are anxious to get the plan in working order at the earliest possible day. It is my plan to make each of you a foreman, and to let you arrange the work to the best advantage. How will you work it?"

"Work from opposite sides of the river," answered Steve. "Jarvis on one side and myself on the other. While the men are building the abutment in the middle of the river we can be running the line to the furnaces and to the gas engine house on the other side. In the meantime your experts can be making the connections at each end, so that there shall be no loss of time at any given point."

"Fine, fine!" nodded Mr. Phillips. "That is a most excellent plan. It's good generalship, and that is what counts in the battles of the industrial world, as well as the battles between the armed powers of the world."

"When do you wish the operations to begin?"

"To-morrow morning."

"Will Mr. Keating permit us to drop our work at the furnaces?" [241]

"That has been arranged. You are free to start in to-morrow."

"Is there any increase in pay for the new work? Of course it is worth more than what we have been doing."

"Certainly. You are perfectly right in raising this question. I took it up with the superintendent this afternoon. We decided that twenty dollars a week would be a fair figure for the work while you are at it. Will that be satisfactory."

"Yes, sir," answered the Iron Boys together. "I presume you will have the men assigned from the different departments. You see, we do not know them and should not be able to gather a force suited to our requirements."

"That has been attended to also."

"One other thing Mr. Phillips; you will leave us free to get rid of any men who do not measure up to the work, will you not?"

"Yes, sir. Any man that you do not want on the job, get rid of him. I think I see two gangs working as perhaps they never worked before," added the engineer with a smile.

"They will have to earn their wages, just as we intend to do," announced Steve.

Mr. Phillips nodded approvingly. He considered himself especially fortunate in getting two such live young men to fill the particular places to which he had assigned them. For the rest of the evening the three discussed the plans for pushing the work to completion in the shortest possible time. When at last the boys rose to take their leave they had outlined thoroughly in their own minds what they intended to do.

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The next morning the Iron Boys were out bright and early. Their first work was to see to it that the material was gotten out and put at the proper places so as to be ready when the work of running the line was actually begun. The material, of course, was picked out by the engineers, as this required technical knowledge that Steve and Bob could not be expected to possess.

At the same time a gang of men had started in on the abutment out in the middle of the river. All day long Steve, on one side of the river, and Bob on the other calmly directed the work of the men. Mr. Phillips made a trip over the ground on both sides of the river. He was well satisfied with his inspection. He was convinced that he had made no mistake in choosing his two young foremen.

Chainmen had run the distances and staked them off, so that by noon the route to be followed by the pipe line was all laid out and ready for the detailed placing of the material. Places where the piping had to be raised or lowered were also marked out. Late in the afternoon Steve and Jarvis went over their respective contracts with blue prints in hand, fixing every detail of the work in their minds.

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"I think we are ready to do business to-morrow," said Steve as the chief engineer came up. "Will you order the full gang to report early in the morning?"

"Yes; that's what I wanted to know—if you would be ready for them."

"We are ready for the great battle," smiled Rush.

On the following morning nearly a hundred men, all told, were working on the two sides of the contract, including the experts who were changing over the furnaces to make possible the installation of the new system.

It was early in the forenoon when Bob Jarvis, on his side of the river, made an interesting discovery. There were two men working for him who attracted his attention at once when he got a chance to look his workmen over and measure his force.

"Foley and Kalinski," muttered the boy. "A fine pair! It does seem impossible to get away from these fellows. They bob up in the most unexpected places and at the most unexpected times." Jarvis grinned broadly. "But this is the time the tables are turned. I'd like to see them cut up any of their fancy tricks on this job. There'll be music—loud music—if they try!"

[244]

The two men were working side by side. Bob strode over to them.

"You," he said, poking Kalinski with a stiff thumb.

The Pole started up angrily, and was about to make reply, but quickly restrained himself.

"I want you to go over there and help put up those braces. You are having a pleasant visit and I hate to break it up, but the best of friends must part, you know. Let me give you a little advice, Kalinski. If you know what's best for you you will not spend much time visiting on this job. Don't forget for a minute, that I am the boss here, and that you are going to toe the chalk mark every minute of the time. As long as you are on the square you are going to get square treatment, but the minute you begin to travel in circles you'll fall off the earth!"

Bob wheeled and, walking over to Foley, delivered much the same advice to him. After that he saw to it that the men did not get together, though of course he could not prevent their doing so at the noon hour, nor was it any of his business what they did at that time. However, none of the crew on that side of the river found time for visiting during working hours. Jarvis saw to that. He kept his men on the jump constantly.

[245]

The same state of affairs existed on Steve's side. The Iron Boy was here, there and everywhere. Nothing about the work appeared to be too trivial for him to require his attention. The result was that when that first day's work was ended, the amount accomplished on both sides of the river made the officials exchange satisfied comments.

Late on the following day the abutment in the middle of the river had progressed so far that the iron framework that was to hold the pipes could be put in place. Steve Rush took charge of this. He knew nothing about iron work, but it did not take him long to get the knack of it.

As fast as a piece of tubing was braced he would be up near the top with eyes on everything. After an hour or so of this he returned to the shore. Work there had not progressed so rapidly since he had divided his oversight.

Rush called the men to a halt and lined them up before him.

"Men, you're loafing on the job," he said. "If I come ashore again and find that you haven't been doing your work the whole lot of you will be sent to the time-keeper with your time, and you will be done working in these mills for good and all. Do you understand? My word goes here, and so will you if you don't do an honest day's work. I am not going to ask impossibilities of you, but I shall expect you to do a full day's work. Now, fall to and get to work."

[246]

The Iron Boy did not even wait to see if they did so. He walked back to his river job. Three hours later he came strolling back with his hands in his pockets. Steve smiled softly. His lecture had not been without results. The men had done more than he had expected.

"Fine, boys!" he shouted. "That's the way to do it. Now go at it! Eat it up! Don't let the men on the other side of the river put it over you. They can't reach your present gait, and I know you are going to keep it up."

Mr. Keating was in the vicinity, though Rush did not know of his presence, and the superintendent dodged in behind a building after listening to the remarks of the young foreman, then went on his way grinning broadly.

"I guess we didn't make any mistake; no, we didn't make any mistake," he repeated to himself.

By the end of the third day the line was laid down to the river bank on both sides. Then began the placing of braces to hold up the piping until it should reach out to the abutment in the middle of the river. [247]

A temporary staging had been erected to hold the work in place until it could be permanently located. Many of the men were working high above the river now. Some were too light headed to make that safe, so Steve and Bob sent these men back to run the rest of the line up to the furnaces.

Each contract was working in three sections now, the boys having disposed their forces to the best advantage possible, so that when they closed that day's work their job was in good shape.

Steve consulted the skies.

"I hope we are not going to have a storm," he decided. "I hope not, for I do not believe either the staging or our construction would stand much of a blow in its present condition."

After supper he went back to the yards to look over the work, and to satisfy himself that it was safe for the night. The moon was shining, so he decided to go out to the abutment. Removing his shoes the lad walked a narrow brace all the way out. The structure trembled under his weight, but he had no fear. He knew that it would hold him. If it did not he felt that it would serve him right to go down with it, for it was his business to see to it that it was made safe for the men. [248]

Rush carefully made his way across the river. He trod more lightly, now, that he might not throw any more strain on the structure than was absolutely necessary.

He reached the other side, stood on the bank a few minutes, then began to retrace his steps. He had gone about half way from the shore to the abutment when a sound reached his ears that caused him to halt and listen—to bend over and peer down into the shadows below.

"That sounds to me like a metal saw," muttered Steve. "It may be an echo from the shore, but I could almost swear it was down there somewhere about the abutment."

The river was so dark that he could see nothing at all, while the structure itself was in the bright moonlight. The Iron Boy crept along a little further, then lay down on his stomach, and began wriggling his way along in that position.

Reaching a point right over the abutment he placed his ear to the iron and lay listening.

"Rasp, rasp, rasp!" The sounds were clearly borne to his ears.

"Somebody is down there, as sure as I am alive! What can he be doing? I believe there is something going on here that I ought to know about. If I try to get down from here I shall be discovered, and there will be no chance of learning what I want to find out." [249]

After a moment's reflection Rush started back toward the shore, hugging the girder as closely as possible to avoid discovery.

He reached the bank, scrambled down to the water's edge and stood peering out into the shadows. Not a sign of a human being could he make out, for the river was too wide at that point.

Steve hesitated not a moment. He removed his coat, vest, shoes and shirt, binding his suspenders about his waist for a belt; then he let himself down into the water without making the slightest splash.

CHAPTER XXIV

CONCLUSION

INSTEAD of swimming straight for the abutment in the middle of the river, Rush headed directly up stream, keeping just a little way out from the shore. His object, at the time, was not apparent. It was a little later, when, after having swum up the river some fifteen rods, he made an abrupt turn and struck out for the centre.

All this time he was swimming without making a single splash, his hands and feet being constantly under water.

Rush was pretty sure that some rascality was going on, or he would not have gone to so great pains.

Reaching a point directly in line with the abutment the boy turned again, this time heading down stream, floating along with the tide, making just enough movement with his hands to keep him on his course.

The abutment was outlining itself in the shadows more plainly every minute, now, and Steve was straining his eyes in an effort to make out what was going on.

All at once the rasping sound ceased and he saw a man straighten up and look about him. [251] Something bright glistened in the hands of the man under the abutment trestle. Steve settled down in the water as low as he could. Then the man resumed his task.

"I believe he is sawing the abutment supports down with a metal saw!" gasped the Iron Boy. "The scoundrel! He's fixing the place so it will go down when all the men get out there to-morrow."

A great wave of indignation swept over Steve Rush. He was so angry that, for the moment, he nearly forgot his prudence. His first inclination was to shout at the man over there sawing away so industriously. But the boy quickly realized the foolishness of doing any such thing. His purpose was to capture the man. There would be time enough to cry out after he had done that.

"Who could do such a thing?" Steve muttered, beginning to rise a little higher in the water as he took wide strokes, driving himself along at as great a speed as was possible.

Steve permitted himself to drift around the side of the abutment, so that he might climb up to it as far away from the man as possible. Otherwise the scoundrel might get the advantage of him. Steve's cunning was worthy of an Indian.

At last the boy's fingers grasped the edge of the abutment. He pulled himself up slowly, allowing [252] the water to drip from him little by little as he rose from the river. Right beside him was a flat-bottomed punt moored to an iron pillar. It was in this that the man had gotten out.

Steve rose and listened; then, hearing no sound, he made his way over the cement and pieces of piping that littered the surface of the abutment.

He was bothered by hearing no sound. He wondered if the man had discovered his presence.

"I must be cautious," thought the boy. "I shall get myself into a fix, and perhaps have the whole structure down on me if I don't look sharp."

A sound to the right of him caused Steve to straighten up suddenly. He saw the figure of a man approaching him.

"Stand still. I've got you!" cried the boy.

At the same instant he sprang forward. He was not afraid to tackle the man. What he feared was that the fellow would get away from him before the boy got a chance to down him.

Steve's leap carried him within three feet of his prey. The Iron Boy was preparing to strike out hard, when something was swung in a half circle about the head of the other man. The object was [253] the metal saw that the fellow had been using for his nefarious purpose. It caught Steve a blow on the side of the head, lifting the boy from his feet sideways and dropping him to the abutment. As he fell, Rush, who was not knocked senseless, fastened about the ankles of his enemy with both arms.

The result of this move was that the man went over too. He toppled over backwards with Steve holding to him tightly. In an instant the two were fighting desperately. Blows were struck on both sides; breaths came short and sharp.

All at once the support slipped from beneath them and the two fighters rolled over into the river, where the battle was continued with renewed vigor. But Rush had been weakened somewhat by the blow from the metal saw and was not at his best.

"You villain!" he shouted. "I've got you now. I've——"

A blow on the side of the jaw caused the Iron Boy's head to droop to one side. One more swift blow, and he dropped limply from the arms of his adversary. With a growl of triumph the man started to swim away. Steve drifted a few yards struggling manfully to regain his senses, which [254] he did in a measure a few seconds later, though his body seemed to be numb from head to feet. The lad managed to get his hands over the edge of the small boat as he drifted alongside of it. Off on the river he could hear the fellow splashing toward shore.

"Help!" shouted Steve. "Catch him!"

He hoped some one might hear his voice and capture the escaping man. As it chanced some one was on shore, and that some one was Bob Jarvis, who, learning at the house that Steve had gone down to the works, followed on. He was standing there when Steve called, and he was on the bank peering down when the man came splashing ashore and started to run away.

Bob grabbed the fellow by the collar.

"Hold on, old man, what's doing around here! What——"

The stranger launched a blow at Jarvis, whereupon Bob knocked the man flat on his back.

"Police!" shouted the boy. Three Iron and Steel Police came running to the scene. "Take this man into custody! He's been up to some deviltry. Hello, I should say so. It's that fiend, Kalinski. I'll make a charge against him after I find what he has been up to."

Shaking Kalinski, Jarvis demanded to know if he had seen Rush, but the Pole would not answer a word. Bob got a boat and hurried out to the abutment after seeing Kalinski safely in the hands of the police. As Jarvis neared the abutment, calling out the name of his companion, he heard Steve's faint answer. [255]

"I knew it, I *knew* it!" fairly shouted Bob. "That scoundrel has been doing Steve up! Oh, I ought to have wrung his neck while I had the chance!"

Rush was quickly taken ashore; and, accompanied by Bob, went to the police station and made the charge against Kalinski. The engineer was routed out, and an examination was quickly made of the foundation. It was found that Kalinski had partially sawed in two, half of the uprights that held the framework, so that, with additional weight upon it, the structure would have collapsed. The men were called out at once. There was no sleep for the Iron Boys that night. By daylight the work had been shored up and made safe for the time being.

The boys were highly complimented for their vigilance, though by some miscarriage of justice, Kalinski got off scott-free and quickly disappeared from the mills.

As for the contract, Steve Rush and Bob Jarvis pushed it along with renewed vigor. By this time the men had come to like their young overseers and all worked at high pressure. The result was that the contract was finished some days before the time named by the officials, and Steve, proud and happy, had the pleasure of seeing the plan that was the product of his own brain put into successful operation. [256]

Bob and Steve still continued to board at the Brodskys. On the strength of Steve's recommendation, Ignatz received a promotion and an increase in wages. The bestowal of this mark of favor upon her son caused Mrs. Brodsky fairly to worship the Iron Boys, and Ignatz became their devoted shadow.

A few days after finishing their contract the boys were detailed to the open-hearth furnaces, where they were promoted to melter's assistants. This sounded much better than it really was, for the boys were to face another trying experience there. In fact, they were destined to face many trying experiences in other parts of the mills ere they had completed their education amid the roar of the ponderous machinery, the thunder of the giant cranes and the deafening reports of exploding metal.

But all this will be told in a following volume entitled, "THE IRON BOYS ON THE STEEL RAIL JOB; Or, Juggling With Life and Death in the Rolling Mills."

THE END.

Transcriber Note

Obvious spelling and punctuation errors have been corrected.

The following words spelled differently throughout the book have been left unchanged:

1. flare-back and flareback
2. gate-keeper and gatekeeper

Page 194 - as printed in the book, unchanged:

This is the fellow who got us into trouble the other time and he is trying to get Steve in again.

Possible that printer or author intended:

This is the fellow who got us into trouble the other time and he is trying to get Steve in trouble again.

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