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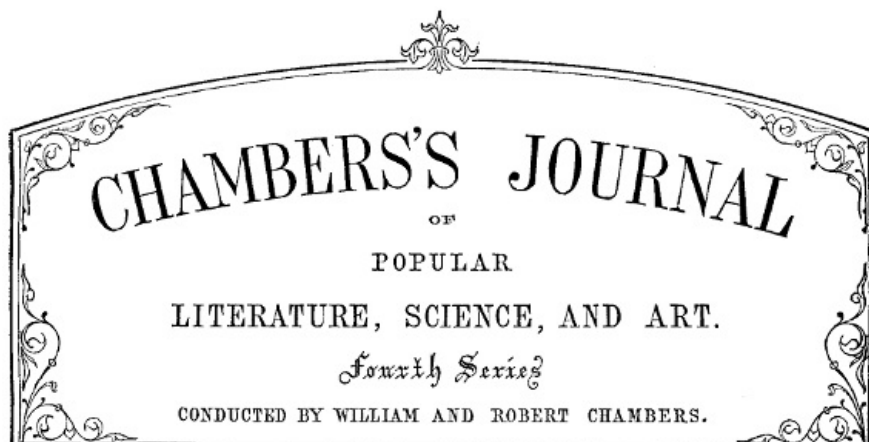
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**CHAMBERS'S JOURNAL  
OF  
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## A CORNISH HAVEN.

COME away with me to the sea! Let us go to Cornwall, where sea and air are of the purest and most exhilarating. Jumping into the train and proceeding westward until we come to Launceston, there we will leave the little quiet old-world town behind. So anxious are we to get to the sea, that we will not even stop to climb the hill and inspect the old castle which frowns down on us; but we will mount to the box-seat of the three-horse coach which stands waiting at the station, and drive away—still westward. Away, over the breezy uplands, where the cattle chew the cud sleepily beneath the August sun, between hedges set with brilliant jewels, which we call flowers, past undulating downs in whose hollows the purple shadows lie dreaming.

We stop presently at a little roadside inn, to give the horses a rest and a feed; and I climb down from my elevated position and partake of a cup of tea in the inn kitchen—a primitive flagged kitchen, with a great high-backed wooden settle by the fire, and pewter bowls and cups shining on the walls. They pour out my bohea from a teapot which a fancier of old china would pronounce to be priceless. Genuine old 'Plymouth' it is, I see, and ask if they would be willing to part with it. But no; 'It was granny's;' and they would rather not sell it; so I turn my covetous eyes away, and clamber back to my seat beside the coachman.

Off we go again, along a fairly level road. The country is but thinly inhabited, and there are long intervals between the houses. By-and-by we begin to descend a hill, and enter a little sleepy town, where at first sight it seems to me that there are an inn and one or two shops, but no inhabitants. Only at first sight; for as we draw up before the *Hotel* (such is the proud boast I see over the doorway), and the driver descends and walks away to deposit a parcel or two and to gossip awhile with his acquaintances, we are delivered over to the tender mercies of the whole juvenile population, who surround the coach, climb on to the wheels, and make audible comments in very broad vernacular on our personal appearance and on our apparel.

This time we move off slowly, for we have a very steep hill to encounter, and the tired horses plod somewhat wearily up it. As we reach the top, and they stop panting to rest, I see far away on the horizon a silver streak, and my heart gives a throb of delight; for I have in its intensest form all an islander's love for the ocean, and I know what that silver streak is on which the sun shines so gaily. On rolls the coach merrily; the horses sniff the air, and seem to know that they are nearing home. Yes; here are the breezes we have come to look for. They peer familiarly under my hat; they blow my veil aside, and rudely kiss my cheeks; and their breath is fresh and salt, and whispers of new strength to the tired mind and body. On we hurry towards the setting sun, who is now mounting the chariot in which he drives away to the other side of the world. We have lost sight of the faint line of silver again, and our view is almost bounded by the dusky hedges. Presently we turn a corner abruptly, and there, apparently at our feet, lies the blue Atlantic, smiling bright welcoming smiles at us in the last rays of departing Sol. The active young breezes, which seem so glad to see us again, revive us with sweet aromatic odours, which they gather from the weed-strewn rocks. They evidently think we are wise people to have left those weak-minded little zephyrs coquetting with the flowers on the lawn at home, and to have followed them to their sporting place beside the restless ever-changing sea.

In another moment we stop, and all the tired travellers dismount and stretch their cramped limbs. I hear many around me inquiring for hotels or lodgings; but we are expected, and here is our landlady's husband come to meet us; so we hand over our luggage to him, and wend our way to Cliff Cottage. Here we find a smiling hostess, who tells us how glad she is to see us; and after we have removed some of the dust of our journey, we sit down to a well-spread tea-table, on which a noble Cornish pasty holds the post of honour. We draw the table into the bow-window, which faces not directly seawards, but towards the bay, which has been a haven of safety to so many. But it is growing dark already, and we are weary with our long drive; so, soon we seek our fragrant chamber, in which the lavender scents struggle faintly to overpower the pungent aroma of the sea; and it is not long before we are lulled to sleep by the monotonous thunder of the waves on the rocks below.

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In the morning we peep out at the colliers which ride safely in the little sunny bay, at the white houses which are dotted here and there over the cliffs, and at the little village itself lying snugly in the hollow. To right and left, sweeping far away, stand the great eternal sea-walls of sombre iron-stone crags, and the grassy downs rolling away inland, unbroken except by a lonely stone or a patch of golden gorse; and beneath us lie ancient gray boulders and stretches of yellow sand. Away on the hill opposite stands the little church, in whose quiet graveyard rests many a sailor who has found his death in the pitiless sea. Eleven graves mark the resting-place of the crew of one vessel, whose figure-head forms an appropriate headstone to the sad group.

The first thing to be done after breakfast is to bathe. It is not enough to be *by* the sea; we must be *in* it, if we wish to rob it of all the strength and vigour we can; so we start off over the downs to where a sudden depression in the cliff leads to the bathing beach. Here we find old Harriet the bathing-woman, browner than ever, who gives us a cordial welcome. The bathing is primitive in the extreme. Harriet possesses two tents, which she pitches daily on a smooth spot of sand. For the use of one in which to disrobe you pay a ridiculously small sum, which also includes old Harriet's watchful 'surveillance' while you are in the water. As the number of tents is so limited and the bathers many, not a few avail themselves of the shelter of a friendly rock behind which to perform their toilet; but I am squeamish, and wait my turn for the tent. And oh! how reviving the plunge into the surf, which comes rolling in frothing and seething like champagne, and which knocks me over and plays at ball with me as if I were a cork! The cool waves curl and cling round

me, and kiss my arms and hands lovingly with their wet lips. I let them break over my bowed head, and clasp them tenderly to my breast; but they slip away from me, and riot and tumble round me with joyous laughter, sprinkling eternal freshness from their bounteous hands. I sniff the keen salt air with delight, and let the foam toss me to and fro at its own sweet will, until Harriet, who watches me anxiously (she thinks me a somewhat rash young person, I know), orders me authoritatively to come in, saying I have had enough of it—for the first time. Very reluctantly I obey; but it would require a braver person than I am to contradict the withered old sea-nymph, and soon I emerge from the tent with streaming locks, feeling like a giant refreshed.

Thank goodness, here are no brass bands, no esplanade; a circulating library of such modest pretensions that it does not circulate, and shops in which it is next to impossible to spend any money! At the chemist's we buy our groceries as well as our drugs, and he is the only wine-merchant the dear primitive little place can boast. But we get mutton which transcends Southdown; capital poultry and vegetables; butter such as I have never tasted before or since; rich cream, which you must call Cornish (not 'Devonshire'), to please the buxom farmer's wife who supplies it to you; and plenty of good fruit. And what do you want more, with such a sky above you, such a glorious sea at your feet, such a wall of ironstone crags behind you? Down on the beach we go, and dawdle away the hot summer afternoon. We stretch ourselves on the tawny sand, where great barriers of rock jut out on each side of us, beneath the shadow of a dreadful scarped cliff, to which no scrap of weed or herbage seems able to cling. We look up at it with a sense of awe. We think of the many ships, nearing home after a weary journey, which have been driven by the storm's pitiless whip straight into its terrible arms, there to meet a dread destruction. We think of the many struggling drowning wretches on whom it has gazed down with its stony eyes during all the ages it has stood there. The great billows in their winter's fury have beaten and lashed it until it is scarred all over; but still it gazes calmly down at them, as if defying their malicious rage. And yet, cruel as it is, how picturesque the colouring as it ranges from the intense purple black of the tide-line, through warm green and brown shadows, to the bright high lights far away above our heads.

Dark rock-pools lie behind us, lined with queer zoophytes and delicate sea-anemones; beside us are the crimson lady's finger and the golden trefoil; the dainty scents of the sea-weed and the fresh wet sand are in the air, and before us is the smiling sea. Yes; he smiles at us to-day, though here—with a restless surf breaking eternally on the beach—he is never calm and rippling, as we see him in more southern climes.

Presently the sun sinks lower in the heavens; a breeze awakes, and the day turns cooler; so we go for a walk along the smooth firm sand, which the ebbing sea has left bare; through a wilderness of weird black cliffs, which, when the tide is high, range far out into the sea in castles and turrets and spires of jagged rock; an iron-bound coast indeed, hopeless to the shipwrecked mariner, save for our friendly little haven. Far away on the warm horizon hangs Lundy Island, like a shapely gray ghost; very faint by day, and at night telling us only by its revolving light where it is. We walk on to a gorge up which we can make our way to the top of the cliff, and homeward over the undulating downs and by the banks of golden broom. We pass through a little village, where the myrtles and fuchsias are all abloom in the cottage-gardens, and where the great yews brood silently over the old gray church. The door stands open, and we go in. What a dear old church, with its quaintly carved oaken pews, and tender-hued stained glass windows! Evidently the restoration-fiend has not reached here yet. Let us hope that he will stay away, along with the esplanade and the brass bands.

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Sometimes we spend our afternoon or evening out at the end of the breakwater, which forms one side of this little mariner's refuge. It connects a rock which stands right out at sea, with the shore, and occasionally in spring-tides is quite under water. One evening, while standing on the far end watching the glorious setting sun, we forget to look behind us, and turning suddenly, find the breakwater submerged. A man could still cross it perhaps, but a not over-strong woman might easily be carried over and drowned by the on-coming surf. I am not brave enough to face it; so we remain where we are, and enter into conversation with a stalwart Cornishman, who, with the instinct of a true gentleman, volunteers—as the lady seems nervous, and as he knows all about the tides, and exactly how high the sea will rise to-night—to remain with us until we are released by the ebbing waters. I rather resent the imputation of timidity, but am very glad he has imprisoned himself with us, as the night turns darker and darker, and the waves creep higher and higher, and wheel and foam and thunder around, as if in impotent rage at their inability to reach their prey.

Our Cornish hero reassures and consoles me, telling me that they cannot possibly reach to where we sit; and he whiles away the time with stories of wrecks which he has seen, and also of many hair-breadth escapes. He tells us how a ship driving straight on to the cruel rocks, was lifted by one giant wave over the breakwater and 'landed safely in the harbour beyond;' and I steal a glance behind me, and see with thankfulness that the waters are abating. In a little while longer, with the help of our pleasant companion, I am able to get over dry-shod, and it is with a feeling of relief that I find myself once more on mainland.

From this breakwater too, on a stormy day we watch the life-boat go out for practice. How gallantly she breasts the breakers, which seize her and whirl her backwards, as if defying her to leave the shore. The seamen tell us that in the great storms which arise here during the winter she is perfectly useless. No life-boat could live in the seas which beat upon this heartless coast. Often the coast-guardsmen have to creep on hands and knees to their signal-station, as, standing erect, they cannot face the wind. But the rocket apparatus has saved many and many a life; and we also one night see that fiery messenger of life and hope speed away into the darkness over an

imaginary wreck; and a fictitious shipwrecked mariner comes on shore in the frail-looking apparatus, which slides along the rope, swaying to and fro in the angry wind, looking like a frail thread, suspended as it is in mid-air over the vexed and tumbling waters below.

Sometimes we make excursions—to Tintagel Castle, where King Arthur dwelt with his knights; or away to wooded Clovelly, where Will Carey lived, and Amyas Leigh suffered, and Rose Salterne loved. Or to Stratton, in the neighbourhood of which a great battle was fought, in 1643, between the Parliamentary and Royalist troops, in which the former, under Waller, were defeated. A cannon found on the field marks the site of the combat; and in the High Street of the town, a slab let into the wall of an old house bears a legend telling how Sir Bevil Grenvil, the victorious general, rested there after the fight.

But we like best to spend our days wandering over the sands and the ancient mussel-clad boulders, or straying across the breezy downs into the rich smiling corn-country beyond, where in the hedges the pale wild roses are transforming themselves into brilliant scarlet hips, and the sun is beginning to dye the blackberries a luscious purple. Then as the day begins to tire, and prepares to go in royal state to her rest, we love to sit out on the rocks listening to the weary surges which sing her a sweet monotonous requiem, and watching the scarlet flames in the west steeping the wet sands in a crimson stain as of blood. A great belt of iron-gray clouds encircles the horizon. Slowly the sun sinks behind it, gilding its edges with a rich luminous glow, which faintly shadows forth the glories the clouds veil from our eyes. Lower and lower he droops his head, heavier and still heavier with sleep, until one brilliant flaming eye is all that we can see. Then the lid drops over that too, and he is gone. Spell-bound, we sit on, listening to the sea's mournful dirges, while night swoops down over earth and ocean with dusky wings. We watch the moon, like a vain lady attiring herself magnificently in the east before she issues forth on her evening pilgrimage. She sends her handmaidens, the stars, before her, and they light up her pathway with their brilliant lamps. Then she comes forth robed in a filmy veil of pearly lace, and mounts silently into the sky, until she sits enthroned far above our heads. She kisses the white crests of the waves, and crowns them with silver, and peers with gentle eyes at the solemn gigantic black cliffs, until they seem to lay aside something of their stony harshness in the light of those poetic orbs. The long oar-weeds waving in the water seem to beckon to her with inky fingers, and a few giddy young stars obey the summons, for some of them have fallen into the quiet rock-pools, and gaze up at us out of their calm depths. The phosphorus awakes and shoots out tongues of lambent flame, as if seeking to outvie the splendour of the queen of night. The waters glow as if they were on fire, and the great dark billows rush in and cast sparkling jewels at our feet.

How shall we resolve to leave all these delights? Wild ocean is so kind to those who love him and do him homage. He gives them back the strength of which the struggle and turmoil of the world have robbed them, and refreshes the weary spirit with his gracious sights and sounds. Nature is no step-mother, and for those who look at her most tenderly and love her best, she paints her fairest pictures and sings her sweetest songs.

But soon, too soon, the day comes when we must bid good-bye to the kindly folks we have grown to love so well; when we rest for the last time in our sea-odoured chamber; when we take our last walk over the downs, and loiter for the last time beneath the shadow of the time-worn cliffs. We leave the dear quiet little place, where we have for a time hidden from the busy world, and rested on our march; we leave it to the winds, which grow ruder and more boisterous day by day, and which soon will drive many a mariner to take refuge in its friendly haven. We shall find our own little zephyrs at home quite grown up, and strong enough to give us many a blow during the winter.

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But if there be any who, like me, would love to linger on its quiet beach, to make acquaintance with its giant wall of rocks, to drink its keen life-giving breezes, to watch its gorgeous sunsets, or dream beneath its silver stars—then, let them take coach at Launceston, and following the declining sun, drive westward away to—Budehaven.

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## THE LAST OF THE HADDONS.

### CHAPTER XXXIII.—'A WOMAN'S ERRAND.'

AFTER making two or three attempts to obtain a private interview with me, and finding that it was not to be, Philip did not stay very long, explaining that he had only come down for the papers, and had business in town for the remainder of the day. Somewhat more gravely and quietly than usual, he shook hands with Mrs Tipper and Lilian; and then, in a matter-of-course way, said: 'Come, Mary.'

I knew that I must not refuse. Murmuring an excuse for a moment, I ran up to my room and fell upon my knees, asking for the strength I so sorely needed for the coming trial; then joined him again, and we went out together. As we walked down the lane, I felt that he too was nerving himself; and presently he asked, in a low grave voice: 'What made you talk in the way you did just now, Mary?'

I was in a difficult position. If I attempted to justify myself, he would take alarm at once, and bind me and himself still closer to our bond. I could only treat it as a jest.

'We all talk nonsense sometimes, Philip.'

'I suppose so; but that is a kind of nonsense you have not taught me to expect from you.'

'I am afraid you expect too much from me.'

'I certainly expect a great deal.'

Fortunately, I had something to say which would keep off love-speeches; and without any attempt to smooth the way, I said it.

'Philip, I want to ask you to give me ten pounds. I have spent all my money.'

Oddly enough, he did not know that I was entirely without money. I had thought it sufficient to tell him only that my dear mother's income died with her, not wishing to pain him with the knowledge that I had been so nearly destitute. I think he imagined that I had a small income of my own, and as I avoided the subject, did not like to appear curious about it. Even now, I believe that he did not suspect me to be entirely penniless, merely supposing that I had spent all that I had in hand. The five-and-twenty pounds had been expended to the last shilling in furbishing up my modest wardrobe, and for small incidental expenses in the way of my share towards the cottages, &c. I had shrunk from the idea of making him acquainted with the state of my finances; knowing how large-hearted he was, and how much would be forced upon me if he once guessed my need. Mrs Tipper was always protesting against the value and number of the offerings which found their way to the cottage, whilst Lilian and I were afraid of expressing a wish in his presence.

It was all very different now. It would cheer and comfort him by-and-by to reflect that I was able to ask a favour of him just at this crisis. Had I not been so sorely pressed as I was, it would still have been as well to ask him.

'Ten pounds!' he ejaculated, stopping short in his walk to gaze at me in the greatest astonishment; asking himself, I think, if *this* was the explanation of the change which he had observed in me. 'I am utterly ashamed of my stupidity in allowing you to name such a thing; though I am sure you will do me the justice to attribute it solely to want of thought!'

'You see I do not mind asking you, Philip.'

'Mind indeed; of course you do not! I will run back at once and write a cheque.'

'No; please do not—not if you have as much as ten pounds with you. Just now, I want only that.'

'Ten pounds! Take what I have about me!' hastily taking out his purse, and putting it into my hand.

'But indeed I could not take all this!' I returned, seeing that the purse contained several notes as well as gold. 'I do not want any more than ten pounds.'

'Nonsense; don't make a fuss over such a trifle.'

But I separated two five-pound notes from the rest, and was very decided about his taking back the purse.

'Then I shall of course send a cheque as soon as I get back. By the way, Mary, I am making arrangements for the settlement of three hundred a year upon you; and of course all is yours, absolutely, in the event of'—

I broke down for a few moments, leaning against the stile where we were standing.

'Nay, Mary'— Then I think that he saw something more in my face than even the allusion to his death seemed to warrant. He went on with grave anxiety: 'I fear you are not well. Is your hand painful?'

Ah, my hand—how thankful I was for the suggestion! I slipped it under my cloak, dragged away the bandage, which again opened the wound.

'Bleeding afresh! You must really have it seen to, Mary.'

'O no; it is really a very trifling affair.' In my misery and despair, I almost laughed at the idea of being able to feel any physical pain.

He assisted me to tighten the bandage again. But I presently knew that it would not do to have his hands touching me and his face close to mine in this way; so, with a little brusque remark about his want of skill (ah Philip, had you known what it cost me!), I declared that my hand required no more fussing over. I had the parting to go through, and needed all my nerve. First, I must make sure of his not coming down to the cottage for two or three days.

'You said you expect to be very much engaged; and therefore I suppose we shall not see you again until the end of the week—Friday or Saturday, perhaps?'

This was Tuesday, and I wanted to make sure of two clear days.

'I will contrive to run down before that, if you wish it, Mary.'

'No; I too have much to do. Do not come before Friday.'

'Very well. You will tell me then which day you have decided upon, since you will not say now.'

I had waived the decision as to which day the wedding was to take place; and I did so again, merely repeating 'Friday.'

'All right; take care of yourself; and be sure to have the hand seen to.' He was stooping down to

give me the customary kiss before crossing the stile; but I took his two hands in mine, and looked up into his face, I think as calmly and steadily as I had prayed for strength to do.

'God bless you, Philip.' Then I put my arms about his neck, lifted up my face to his, and kissed him. 'Good-bye, dear Philip.'

I saw an expression of surprise, a slight doubt and hesitation in his eyes. He had not found me so demonstrative as this before, and was for the moment puzzled to account for it. But I contrived to get up a smile, which I think satisfied him. Then with a last wrench, I turned away, hearing as though from another world his answering 'Good-bye' as he vaulted the stile.

After that, the rest would be easy. I allowed myself one hour in the woods—not for the indulgence of regret—I knew too well the danger of that—but for recovery, and got back to the cottage in time for our early dinner. Moreover, I forced myself to eat, knowing that I should require all the strength I could get; and delighted dear kind old Mrs Tipper's heart by asking for a glass of wine.

It was a terrible ordeal, sitting there under their tender watchful eyes; but I got through it tolerably I think. Afterwards, I told them that I wanted to catch the three o'clock up-train, adding a purposely indefinite remark about having some arrangements to make in town.

'Is Mr Dallas going to meet you, my dear?' asked Mrs Tipper anxiously.

'No; I am going on a woman's errand,' I replied, with a sad little half-smile at the thought of what their surprise would be if they could know how very literally I was speaking.

'*Must* you go to-day?—may not I go with you, dear Mary?' pleaded Lilian. 'You are looking so pale and unlike yourself; I do not like the idea of your going alone.'

'I should fancy that there was something really the matter with me, if I could not go alone so short a distance as that, dearie,' I lightly replied. 'I think I will allow my age to protect me.'

She drew nearer to me, looking at me in the nervous, half-afraid way she so frequently did of late, as she laid her hand upon my arm.

'I wish you would not talk like that—dear Mary, why do you?'

I was not strong enough to bear much in this way; so replied with an attempt at a jest, which made her shrink away again. I daresay my jests were flavourless enough, and in strange contrast to my looks.

Mrs Tipper's silent, anxious watchfulness was even harder to bear than Lilian's tender love. It was not my journey to town which puzzled them—I saw that they imagined I was intent upon preparing some little pleasant surprise for them at my wedding—but the change they saw in me, which no amount of diplomacy could hide.

How thankful I was, when I at length made my escape to my own room; but I was not allowed to go alone. I had to bear Lilian's loving attendance whilst I was putting on my bonnet and cloak. Indeed, she lingered by my side until I had got half-way down the lane.

'You will not be very late, Mary?'

'No, dearie; I think not—I hope not.'

'We shall be longing to see you back.'

'And you must not be surprised if I return in a very conceited frame of mind, after being made so much of,' I lightly replied.

'Only come back *yourself*,' she murmured, giving me a last kiss as she turned away.

Dear Lilian, did she in truth guess something of what the lightness cost me? I knew that I did not deceive her wholly. Although she might be in some doubt as to the cause, I did not succeed in hiding the effects from her.

I arrived at the London terminus about four o'clock, and took a cab, directing the man to drive to a West-end street facing St James's Park. My errand was to one of the largest mansions there, which at any other time I should have considered it required some nerve to approach in a way so humble. I could quite understand the cabman's hesitating inquiry as to whether I wished to be driven to the principal entrance. Probably I did not appear to him quite up to the standard of the housekeeper's room. Fortunately I was not able to give a thought to my appearance. Had I been visiting the Queen, I should have thought of her only as a fellow-woman, in my deep absorption.

Three hours later I was taken back to the railway station in a luxurious carriage, borne swiftly along by spirited horses; a slight, refined, delicate-looking woman, with earnest thoughtful eyes, and attired almost as simply as myself, was sitting by my side with my hand in hers, as we now and again touched upon the subject which occupied our thoughts.

I had found a friend in my time of need, and such a one as I had not dared to hope for. But this in due time. We parted with just a steady look and grasp of the hand.

'To-morrow?'

'Yes; between six and seven.'

I returned to the cottage, certainly not looking worse than when I had quitted it, and was received with a welcome which made me almost lose courage again. Fortunately it was very nearly our usual time for retiring. Fortunately too I had much to do, and it had to be done in the small-hours of the night, so that I had no time to give to the indulgence of my feelings when I was left alone in my room. First turning out the contents of my drawers and boxes, I separated from

them a few things which were absolutely needful for my purpose. One dress and cloak and bonnet were all that I should require, besides a small supply of under-clothing. The latter I put into a small trunk which Becky could easily carry, and then replaced the other things in the drawers again, arranging and ticketing them in orderly methodical fashion as I wished them by-and-by to be distributed. If 'Tom' should in course of time prove more appreciative of Becky—which in consequence of a hint I had received from Lydia, I did not despair of so much as she did—I pleased myself with the idea that the contents of certain drawers would make a very respectable outfit for her. The plain gray silk dress which I had purchased for my own wedding would not be too fine for hers. In a note placed on the top of the things, I begged Mrs Tipper to give them to Becky when the right time came. Afterwards I took out the little collection of my dear mother's jewellery. It was really a much better one than I had believed it to be. Indeed I had never before examined the contents of the packet. When it appeared probable that the jewels would have to be sold, I had avoided looking at them; shrinking painfully from the idea of calculating upon the money value of my mother's only legacy to me; and perhaps also in my time of need a little afraid of being tempted by the knowledge of its worth. One diamond ring, a large single stone, which even I could tell was of some value, I put on the finger of my left hand, which would never wear another now. That was all I would keep. I then put aside a pretty ruby brooch for my dear old friend Mrs Tipper; and after some hesitation about making a little offering to Philip, I satisfied myself with selecting a valuable antique ring which had belonged to my father, and writing a line begging Lilian to give it to him with the love of his sister Mary. The rest—I was quite proud of the quantity now—I packed up and addressed to the care of Mrs Tipper—my gift to my dear Lilian on her wedding-day.

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## SUBMARINE CABLES.

### WORKING.

THE working and maintenance of the existing telegraph lines employ a vast number of people taken all together; but it is surprising how few hands are necessary for the working of any single line or system. This is especially so in the case of submarine cables, where, when the cable continues sound, it is not necessary to support a staff for surveillance and repairs. Half-a-dozen stations several hundred miles apart, and half-a-dozen men at each, are sufficient to carry the news from one end of a continent to the other.

Without enumerating the telegraph systems that now exist, it may suffice to say that the British Isles are connected by submarine cables with nearly every quarter of the globe, and that their number is still increasing.

A telegraph station abroad, no matter in what Company or country, presents nearly the same characteristics wherever found. The more remote the place, the more primitive may be the arrangements; but the work is the same, the men are about the same, and the instruments almost invariably so. There is the superintendent; and under him the clerk in charge, his right-hand man, who oversees the clerks or operators at their work of sending and receiving messages. Then, besides these, and partly independent of them, there is the electrician, a member of the scientific as distinguished from the operating staff of the Company, whose duties are to take periodical tests of the cable and land-lines, to report on their condition, and to keep the instruments in proper working order. Under all these, there is generally the messenger and battery-man, who may be called the stoker of the electrical engine, and who, besides, does the odd work of the establishment.

The station itself generally consists of the superintendent's office or bureau; the instrument-room, where the messages are sent and received; the battery-room, generally under ground; and the sleeping-quarters of the clerks. Occasionally the electrician and clerk in charge have separate working-rooms; and a smoking-room, with perhaps a billiard-table and home newspapers, are added for the convenience of all. Life passes quietly and uneventfully at these stations, except when something goes wrong with the instruments or the cable, and then the electrician has his period of anxiety and trouble; while the operators, on the other hand, find their occupation at a temporary standstill.

To understand the working of a submarine cable and the actual process of sending a message, it is necessary to figure in imagination the several parts of the electric circuit, made up of the battery, the instruments, the cable, and the *earth* itself; and to remember that for a current of electricity to flow through any part of the circuit it is necessary that the *whole* circuit should be complete. Starting then from the battery, which is the source of the electric current, we have the cable joined to it by means of a key or sending instrument, which by the working of a short up-and-down lever can connect or disconnect the conductor of the cable to a particular pole of the battery, the other pole of the battery being the while connected to the earth. The cable then takes us to the distant station. Here the conductor is connected to the receiving instrument, or instrument for making the signals indicating the message, and through the receiving instrument it is connected to the earth. The electric circuit is thus rendered complete. The current passes from one pole of the battery by means of the key into the cable, through the cable to the instrument at the other end, and thence to the earth; and inasmuch as the other pole of the battery is at the same time connected to the earth at the first station, the conducting circuit is complete, for the earth, no matter what the intervening distance be, acts as an indispensable part

of the circuit.

We have thus the two stations connected by a cable. At the station sending the message there is the battery, from which the current proceeds; the sending instrument, for letting the current into the cable, or stopping it; and the 'earth-plate,' or metal connection between one pole of the battery and the earth. At the station receiving the message there is the receiving instrument, and again the earth-plate, connecting the earth into circuit. These separate parts of the circuit, as we have already said, must be 'connected up,' as it is termed, so as to provide a complete conducting channel for the current to flow in from one pole of the battery to the distant place and back again (or virtually so) through the earth. Only at one place can the circuit be interrupted and the current consequently stopped—that is, at the key of the sending instrument. Here then the sending clerk sits, and by manipulating the lever of this key he 'makes and breaks' the circuit at will, and thereby controls the current. The regulated making and breaking of this connection is the basis of telegraphing, whether by submarine cable or by the ordinary land lines. Accordingly as the clerk maintains the circuit for a longer or a shorter time, so will the current give longer or shorter indications on the receiving instrument at the distant station: or again, according as the opposite poles of the battery are applied to the cable by the key, and the direction of the current consequently reversed in the cable, so will the indicated signals on the receiving instrument be of opposite kind. From the elementary short and long signals, or right and left signals, so obtained on the receiving instrument, a code of letters and words may be built up, and intelligible messages transmitted. The Morse Code is that universally adopted, and for the further information of our readers we here append it as it is usually written:

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Letter.	Sign.
A	. —
B	— ...
C	— . — .
D	— ..
E	.
F	.. — .
G	— — .
H	....
I	..
J	. — — —
K	— . —
L	. — ..
M	— —
N	— .
O	— — —
P	. — — .
Q	— — . —
R	. — .
S	...
T	—
U	.. —
V	... —
W	. — —
X	— .. —
Y	— . — —
Z	— — ..
Ch	— — — —
é (accented)	.. — ..
Understand	... — .
Wait	. — ..

The numerals run:

Numeral.	Sign.
1	. — — — —
2	.. — — —
3	... — —
4	.... —
5	.....
6	— ....
7	— — ...
8	— — — ..
9	— — — — .
0	— — — — —

For other accented letters, fraction signs, punctuation, and official directions as to the disposal of the message, there are other signs, but the above are the essentials of the Morse Code. The long and short signs represent the long and short signals of the receiving instrument, produced by the



long and short contacts of the sending key with the battery. It will be seen that the letter A is rendered by a short signal followed by a long one; the letter B by a long signal followed by three separate short ones; and so on. Hence, in order to telegraph the letter A to his colleague at the distant end of the line, the clerk, by depressing the lever of the sending instrument, makes contact between the cable and the battery, first for a short time, and then for a longer time. The long and short signals are widely employed in overland telegraphy; but in submarine telegraphy a saving of time is effected by signals of *opposite kind*. Thus, if a left deflection, or deflection of the indicator to the left, signifies a 'dot' or short signal, a deflection to the right will signify a 'dash' or long signal. In this case the sending instrument or key has two levers, a right and left one, corresponding to the distinct signal which each produces. By depressing the left lever of the key, a pole of the battery is applied to the cable, which produces a left-hand signal on the receiving instrument at the distant station; and by depressing the right-hand lever, a right-hand signal is produced. Proper rests or intervals are permitted between the separate words, letters, and full stops of a message.

The battery in common use for submarine telegraphy is either the sawdust Daniell or the Leclanché. The Daniell consists of a plate of zinc and a plate of copper brought into contact with each other by sawdust saturated with a solution of sulphate of zinc; and crystals of sulphate of copper (bluestone) are packed round the copper plate, so as to dissolve there in the solution of sulphate of zinc. The zinc plate forms the *negative* pole of the battery, and the copper plate the *positive* pole. When these two poles are connected together by a wire or other conducting circuit, such as that made up of the cable and the earth, a current of electricity—the voltaic current—flows from one to the other, and always in one direction, namely, from the copper or positive pole to the zinc or *negative* pole. Hence it is that by applying the one pole or other to the cable and the other to earth through the earth-plate, the direction of the current in the cable is reversed and opposite signals produced.

The earth-plate is usually a copper plate several feet square, sunk deep into the moist subsoil near the station, so as to make a good conducting contact with the mass of the earth.

The receiving instruments for working a submarine cable are different from those used in working land-lines. Inasmuch as the current travels full strength, like a bullet, through a land-line, and in the form of an undulation or wave through a cable, so is it necessary to have different kinds of receiving instruments for each. In a land-line powerful currents can be used with impunity, and these can be made, by means of electro-magnetism, to move comparatively heavy pieces of mechanism in giving signals. But in a cable the currents are prudently kept as low as possible, in case of damage to the insulator, and the receiving instrument must therefore be delicate. In land-lines the current passes in an instant, leaving the line clear for the next signal, so that the indications of the receiving instrument are abrupt and decided. But in a cable the electric current takes an appreciable time to flow from end to end, so that the separate signals in part coalesce, the beginning of one blending with the end of that preceding it, so that the signals become involved with each other. It is necessary, therefore, that time be allowed for each wave to clear itself of the cable before another wave is sent in, otherwise we would have the cable as it were *choked* with the message. A continuous current of electricity may be said to be flowing through it, and the ripples on the surface are the separate signals of the message. It is to take cognisance of these waves or ripples that the receiving instrument for cable-work must be designed; and as the quicker the message is sent into the cable the smaller these ripples will be, the more delicate should be the instrument.

There are only two instruments in use on long cables, and both are the invention of Sir William Thomson, the distinguished Glasgow physicist and electrician. The mirror galvanometer has been already described in this *Journal* in a paper on the manufacture of submarine cables; and the 'mirror' or 'speaker,' the commonest of these receiving instruments, is but a modified form of the mirror galvanometer. It consists of a hollow coil of silk-covered wire, in the heart of which a tiny mirror, with several small magnets cemented to its back, is suspended by a single thread of floss-silk fibre. A beam of light from a lamp is thrown upon the mirror, and reflected from it on to a white screen, across which a vertical zero-line is drawn. When no current is passing through the coil, the reflected beam of light which makes an illuminated spot or gleam on the screen, remains steady at the zero-line. But when a current passes through the coil, the magnets in its heart are moved and the mirror with them, so that the beam of light is thrown off at a different angle, and the spot of light is seen to move from the zero-line along the screen to right or to left of the zero-line according as the current is made or reversed in the coil; so that as the key is manipulated at the sending station, so are right or left signals received by the clerk who sits watching the movements of this spot of light, and interpreting them to his fellow-clerk, who writes them down. In the form of instrument here described, and also in the other receiving instrument for submarine work, the zero is not fixed but movable. The vertical line on the screen is only the nominal zero. The continuous current underlying the ripples which form the message, deflects the spot from the zero-line; but this slow deflection can be disregarded by the clerk, for over and above it there are smaller quicker movements of the spot to right and left corresponding to the ripples, and these are the proper signals of the message. It requires long practice to make a good 'mirror' clerk, one who can follow the gleam with his eye through all its quick and intricate motions, and distinguish between those due to the shifting zero and those due to the various signals sent. Even this compound-ripple difficulty, however, is now got rid of by the use of an apparatus called a 'condenser,' the effects of which are that continuous currents are neutralised, and the pulsations of the signals sent are *alone* seen in the movements of the light upon the scale.

The other instrument is the siphon recorder, which permanently records in ink the signals which the 'mirror' only shews transiently. The principle of the siphon recorder is the converse of that of the mirror. In the mirror there is a large fixed coil and a light suspended magnet. In the siphon recorder there is a large fixed magnet and a light suspended coil. When the current passes through this coil, the latter moves much in the same way as the magnet moves in the 'mirror;' that is, it rocks to right or left according as the current flows. This rocking motion is communicated, by a system of levers and fibres, to a very fine glass capillary siphon, which dips into an ink-bottle and draws off ink upon a strip of running paper. The ink is highly electrified, so as to rush through the siphon and out upon the paper, marking a fine line upon it as it runs. When no current passes in the coil, this zero-line is straight; but when currents are passing, the line becomes zigzag and wavy; and the right and left waves across the paper constitute the message. Both of these instruments are very beautiful and ingenious applications of well-known electric, optical, and mechanical principles. The great merit of the recorder is that if a false signal is accidentally made by the sending clerk, the whole word need not always be lost by the receiving clerk, but may be made out from the rest of the word written down. Thus much repetition of messages is saved. There is some advantage too in having a written message for purposes of after reference.

A singularly ingenious system of telegraphy, termed the *duplex*, has recently been extended to long submarine cables, and is likely to become of general, if not universal application. It is effected by constructing an artificial line, in this case representing an artificial cable, which shall have the same influences on the current that the actual cable has. The signalling current from the battery is then split up at each station between the actual cable and the artificial cable, so that half flows into one and half into the other. And there is placed a receiving instrument in such a way between these two halves of the current that they exactly counterbalance each other's effect upon it; and so long as sending is going on from a station, the receiving instrument at that station is undisturbed. But the sending currents from the other station have the power to disturb this balance and cause signals to be made. Thus then, while the sending at a station does not affect the receiving instrument in connection with the cable there, the currents sent from the distant station cause it to mark the signals. Each station is thus enabled to send a message and receive one at the same time; and this is what is called duplex or double telegraphy.

In ordinary telegraphy, one station is receiving while the other is sending; but in duplex working, both stations are sending together and receiving together, so that there is little or no delay in the traffic, and the carrying power of a busy cable is practically doubled.

In case of accident to the cables each Company maintains a repairing-ship ready to go to sea at shortest notice. Some 'faults' are of a nature not seriously to interfere with the working of a cable; but it cannot be expected that they will remain always in the same comparatively harmless state. When a flaw occurs in the insulator it tends to enlarge itself, and more of the current escapes to the sea, until so much escapes that the current which reaches the distant station is too feeble to work the instruments there. All traffic therefore ceases. The electrician's tests having localised the fault so many miles from shore, the repairing-ship proceeds to the spot. Here she lowers her grapnel a mile or two on one side or other of the supposed line of the cable, and when enough rope has been let out, she steers very slowly under steam, or drifts with the tide across the cable's track. The grapnel is simply a great iron hook, one approved form being like a compound fish-hook, with five or six flukes starting from the shank. A weight of chain drags behind it, to keep it well down on the bottom. The rope, which is generally of wire and yarn, passes under a dynamometer, which indicates its tension, and thence to the steam winch used for hauling in. Often the grapnel catches in rocks, or mud, and gives rise to false hope of the cable having been found. The ship is brought to, and hauling in commences; but soon the obstruction 'gives,' or the grapnel itself breaks, and the true nature of the 'catch' is found out. When the cable is hooked, the greatest skill and care are needed, especially when the ship's head lifts with the waves, to bring up the bight carefully without breaking the cable. When brought to the surface the cable is cut, and each end is brought on board in turn and tested. The fault, as we have previously shewn with the paying-out ship, may prove to be but a few miles distant. The sound end is thereupon buoyed, and the ship proceeds to pick up or haul in the faulty end until it is thought the fault must have been picked up. The electrician then cuts off the piece which contains the fault, and then he has only to join on a sound piece of cable in its place, and lay it back to the end that was buoyed, so filling up the gap. But if it should *not* contain the fault, the tests are again applied, until finally the fault is detected and cut out. Repairing is arduous and trying work; now giving rise to hopes, now crushing them, and anon deferring them. A great responsibility rests on those who undertake them, as the gain or loss of a week or two may represent an enormous sum of money to the Company.

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## CROSS-PURPOSES.

### IN TWO CHAPTERS.—CHAPTER II.

HAD Cissy only known it, there was very little in Frank Halkett's words to cause her any uneasiness. On his entering the drawing-room, seeing his place by Cissy's side forestalled by the major, whose person intercepted the beaming smile of welcome she bestowed upon him, he had turned away and thrown himself into the low chair that stood by Mrs Leyton's cosy lounge.

'So you have taken refuge with me,' says that lady with a quiet smile.

'Refuge!' repeats Halkett with an innocently puzzled air. 'No; I have only taken a seat.'

'What's the matter with you, Frank?'

'Nothing. Why? Do I look dyspeptic?'

'You don't look pleasant, certainly, if that has anything to do with it. Come; I am a witch, you know,' says Mrs Leyton, 'and so can tell all your secrets. And just to prove my power, I will tell you something now—you are sulky this evening.'

'Meaning I am stupid, I suppose,' says Halkett; 'but it don't take much witchery to discover that. I have an awful headache.'

'Oh, but I have not half done yet,' exclaims Mrs Leyton. 'Shall I go on? I could tell something very important, but that I am afraid of your heavy displeasure. Will you promise not to be angry?'

'Angry with *you*! Was I ever that?' asks Halkett tenderly. 'I give you full liberty to say anything on earth you like to me.'

'Do you mean that?'

'Certainly I mean it.'

'Very good then,' says the widow with lazy triumph; 'I will continue my sorceries; and first—you are in love.'

'In love!' reiterates Halkett, forcing himself heroically to meet her laughing eyes, and reddening very much in the attempt. 'No, no; your witchcraft has played you false this time.'

'It has not. I persist in my declaration. You are in love—hopelessly, irretrievably, desperately in love.'

'Well, perhaps I am,' says Frank, with tranquil resignation. 'Is that strange? Could one be with you, Frances, for so long a time, and not'—

'Nonsense!' interrupts Mrs Leyton. 'Do not trouble yourself to complete that sentence. We are much too old friends for *that*, I take it. And now, Frank, be a good boy; emulate your name, tell me all about it.'

'I really don't know that there is anything much to tell,' says Halkett, smiling. 'But what there is you shall hear. I admire a certain young lady more than is good for me; I fancy, until to-day, she returns my regard. I discover a couple of hours ago that my vanity has misled me. I see her happy in the arms—no, in the society of another—I find myself nowhere, hence my dyspepsia, distraction, and despair.—Don't look so sympathetic, Frances; probably I shall get over it.'

Though he says this with a laughing face, Mrs Leyton's dark eyes can see for themselves he is tremendously hard hit.

'And what is her name?' she asks sweetly.

'O Frances! You laying claim to be a witch, and must even ask *that* question? I decline to answer it. Your fairy lore should enable you to find out that much for yourself.'

'I love my love with a C because she is candid; I hate her with a C because she is capricious,' says Mrs Leyton archly. 'Am I "warm?" or will you still cry "cold?" If you do the latter, I doubt you will be wronging your conscience. Ah, Frank, I think I am one too many for you!'

'You were always that. What one man is equal to any woman? Well, as you have guessed so far, I believe I may as well tell you the rest;' and forthwith he commences to pour forth a tale, the telling of which had caused Cissy such exquisite anguish.

When he has finished, Mrs Leyton says: 'If you will take my advice, you will seek the first opportunity that offers, and ask for an explanation of her coldness.'

'You really think that the best thing to do?' says Halkett, brightening. 'I will act upon your advice then, and try my chance. Now let us forget it for the present. Is that a new ring upon your finger? May I look at it? Does it mark a fresh adorer?'

'No; an old one. Geoffrey Hyde gave it to me last autumn.' She surrenders her hand to him as she speaks; and he bending over it, examines leisurely the cluster of brilliants that scintillate and flash beneath the lamp-light.

'He has been faithful to you for a long time,' says Halkett presently.

'Yes; he is very tormenting. I really believe I shall have to marry him in the long-run, if only to get him out of the way.' She reddens a little as she says this, and laughs rather nervously.

'Are you serious?' asks Halkett with surprise. 'Then you are going to make him a happy man after all?'

'That remains to be proved. Probably I shall make him a wholesome warning to all obstinate men. But I think when last I saw him I made him some foolish promise about marrying him in the spring.'

'I congratulate him with all my heart, and you too,' says Halkett cordially. 'I think he is the only man I know *quite* worthy of you.'

When the hour comes for bedroom candles to be adjusted, Halkett seizes one, lights it, and carries it solemnly to Miss Mordaunt. But quick as he has been, Major Blake reaches her side

similarly armed, almost at the same moment.

'Which shall I take?' says Miss Cissy gaily. 'I suppose I can have my choice. I think *this* pleases me most;' and she holds out her hand towards Blake with a pretty smile. 'Thank you,' she continues, slipping her slender fingers into his brown palm; 'and good-night. Don't smoke too much;' and with a little provoking backward nod she trips away, without bestowing so much as one poor glance upon Halkett. And so ends his first attempt at an explanation, leaving him so indignant that he almost vows he will not seek another. {458}

All the following day Miss Mordaunt studiously avoids him, giving him no chance of obtaining the tête-à-tête she sees is impending. But Halkett calmly bides his time, knowing it cannot be far distant. As daylight fades, he feels more than ever determined to bring her to book before the dawn of another morning; and in this instance at least the Fates favour him, as there is to be a large dancing-party at the Hall to-night. She cannot well refuse to give him one dance out of the many—such palpable avoidance would be rather *too* marked; and once he has secured her as his partner, she must be at his mercy until the dance comes to an end.

This idea of course has also occurred to Miss Mordaunt, and though dreading the interview, she is still sufficiently indignant to cause her to make up her mind to be as curt and outspoken on the occasion as will be in strict keeping with her dignity. In this frame of mind she goes up-stairs to dress, and being an Irishwoman, it cannot be altogether said but that she sustains a rather pleasurable sensation—albeit one largely mingled with something very much akin to nervousness—as the battle-hour draws nigh.

'What shall I wear, Kennedy?' she asks her maid, sinking languidly into a chair.

'Well, miss, you know you look well in anything,' says Kennedy obligingly; 'there is nothing but what becomes you; but if I might be allowed to suggest, you look lovely entirely in white.'

'I won't wear white; I hate it,' says her mistress pettishly. 'Débutantes, and brides, and corpses wear white; I think—I shall wear—*black* to-night.'

'Black? O Miss Mordaunt!'

'Yes; certainly. Is gay clothing so necessary to me, then?'

'Well, miss, there's no doubt but you look real handsome in black; but the other ladies—they will be so gay—and you'—

'I shall be gayer than any of them, and the greater contrast!' cries Cissy, springing to her feet. 'Come, Kennedy; despatch, despatch; I feel I shall hold my own yet.'

And Kennedy throwing herself heart and mind into her task, soon turns out the most charming picture possible.

As Miss Mordaunt enters the drawing-room she sees Halkett standing on the hearth-rug in earnest conversation with the widow, who, if there is a fire anywhere, is never any great distance from it. He has been telling her of his repulse of the night before, and is looking somewhat dejected.

'Never mind,' says Mrs Leyton kindly; 'get her *alone*; then *you* will have the advantage. I think she must have heard—or fancied—something that wounds her.'

'I do not flatter myself so far; I merely think she prefers Blake, and wishes to get rid of me,' says Halkett gloomily.

'Nonsense! Let nothing induce you to believe that. In the first place, she doesn't even *look* at the man in the right way.'

Halkett laughs in spite of himself, and immediately afterwards becomes if possible even more despondent than before.

'How can she like that fellow Blake?' he says ill-naturedly.

'Oh, I don't see *that*. For my part, I think him absolutely handsome.'

'Of course, that goes without telling. All women have a *tendresse* for those great coarse broad-shouldered men. And what an accent he has!'

'Do you really dislike it? To me, I confess it is rather pleasant; mellow, with just a touch of the brogue. Your Cissy, you must remember, has it too, with perhaps rather more of the mellow and less of the brogue; but then you are prejudiced against this poor Blake.'

'Indeed I am not; you mistake me altogether: I think him a downright good fellow. In fact I have a fancy for all Irishmen; they are so full of go—chic—good-humour, until crossed. And Blake is like all his countrymen, a most enjoyable companion,' says Halkett with suspicious warmth.

'Evidently Miss Mordaunt is of your opinion,' says the widow rather cruelly, pointing to where Cissy is listening with a smiling face to one of the major's good stories.

Meanwhile the guests are arriving; and the fine old room that has been given up to the dancers is rapidly filling with pretty girls and powdered dowagers and men of all ages and degrees. Papas too are numerous; but these instinctively crowd round Uncle Charlie, and by degrees edge towards a more dimly lighted room, where instinct tells them, whist is holding silent sway.

'Will you give me the first dance?' says Halkett to Mrs Leyton, who readily grants her consent. Major Blake has of course secured Cissy; and presently, as ill-luck will have it, they find themselves in the same set, dancing opposite to each other. As Halkett's hand meets Cissy's, he

hardly lets his fingers close round hers; and as she is also in a revengeful mood, the ladies' chain almost falls to the ground. Mrs Leyton, in spite of the good-nature that lies somewhere in her composition, nearly chokes with suppressed laughter as she witnesses this little by-play. She twits Halkett about it later on, but he is moody, and doesn't take kindly to her witticisms.

At least half the programme has been gone through before Captain Halkett asks Miss Mordaunt for the pleasure of a dance.

'If I am disengaged,' she says coldly, not looking at him, and searches her card with a languid bored air that tantalises him almost beyond endurance. He is longing to say: 'Never mind it; I wont interfere with your enjoyment this time,' with his sweetest smile, and rage at his heart; but he is too sternly determined to have it out with her to-night, to let his natural feelings win the day.

Cissy examining her card finds she is not engaged for the next dance, very much to her disgust; and is pondering whether she shall tell the lie direct and declare she is, when Halkett, as though he divines her thoughts, says abruptly: 'Not engaged for the next? Then I suppose I may have it?'

'I suppose so,' returns Miss Cissy reluctantly; and instantly turning from him, addresses her partner, as though such a person as Halkett were no longer in existence. Indeed, when after a quarter of an hour, he finds her in the conservatory and claims the fulfilment of her promise, it is with the utmost bad grace she places the very tips of her fingers upon his arm, and looks impatiently towards the ball-room. {459}

'I don't mean dancing just yet; I have something particular to say to you first,' says Halkett hastily, and almost commandingly, standing quite still. 'It is hardly private here. Would you find it too cold to come with me into the garden?' glancing at the open door of the conservatory.

Cissy hesitates; then fearful of seeming reluctant, says: 'No. If you will go to the library for my shawl (you will find it on the sofa), I will go with you.'

'You will stay here until I return?' says Halkett, regarding her intently.

Cissy stares in turn. 'Of course I will,' she answers rather haughtily; and he goes.

'Did he imagine I would run away when his back was turned?' she soliloquises angrily. 'Does he suppose I am *afraid*? One would think it was *I* was in the wrong, not he. His conduct altogether is downright mysterious. I cannot understand him;' and for the first time it dawns upon her mind that there may possibly be some flaw in the interpretation she has put upon his conduct.

Returning with the shawl, Halkett places it gently round her shoulders, and they pass into the quiet night.

'What a beautiful moon!' exclaims Cissy presently, hardly knowing what to say.

'Yes;' absently.

'And for this time of year, how wonderfully mild it is—not in the least cold—as one might expect.'

'Yes—no—is it not?'

'I really don't know what *you* think about it,' says Miss Mordaunt impatiently. 'I for my part find it almost warm; but of course I cannot answer for you. Probably all this time you are feeling desperately cold.'

This little petulant outburst rouses Halkett.

'No!' he says with sudden energy and warmth; 'I am *not*. It is not in my nature to be cold in any way. I feel most things keenly: more especially slights from those I love. All ill-concealed disdain, unkind speeches, fickleness, touch me closely.'

'I can sympathise with you,' says Cissy calmly. 'I think nothing can be so bad as inconstancy—except perhaps deceit.'

This retort being as unexpected as it is evidently *meant*, puzzles Halkett to such a degree that he becomes absolutely silent. Miss Mordaunt, with her white shawl drawn closely round her slight black-robed figure, walks quietly beside him with the air of an offended queen, her head held rather higher than usual, a pretty look of scorn upon her lips.

After a while Halkett pulls up abruptly and faces her in the narrow pathway. 'What is the reason of your changed behaviour towards me to-day and yesterday?' he says shortly. 'I think I have a right to ask that.'

'*Have* I changed?'

'*Have* you? Must you ask the question? The whole world can see it. You treat me with the most studied coldness.'

'I thought I was treating you with as much courtesy as I give to all my uncle's guests.'

'I don't care for courtesy,' says Halkett passionately; 'your hatred would be better than your indifference. Yesterday morning I believed we were friends—nay, *more* than that; yesterday evening you ignored me altogether. It is either heartless coquetry on your part, or else you have a reason for your conduct. Let me hear it.'

'You are forgetting yourself,' says Miss Mordaunt coldly. 'You are the first person who has ever accused me of coquetry; you shall not do it again. I was foolish to come here with you, but—I trusted you. I wish to return to the house.'

'Nay, hear me!' cries Halkett remorsefully, following as she makes a movement to leave him, and catching her hand to detain her. 'Your avoidance has so perplexed and maddened me, that I said more than I meant or intended. Forgive me, and at least let me know how I have offended. Cissy, answer me!'

For a moment Miss Mordaunt hesitates, then endeavouring to speak lightly: 'I did not intend to perplex you,' she says; 'one cannot speak to every one at the same time. I am sorry if I appeared rude or neglectful; but you did not *look* very miserable, and surely Mrs Leyton was an excellent substitute for me.' She smiles as she says this, but pales a little too beneath the brilliant moon that is betraying her.

'Mrs Leyton is my very oldest and dearest friend,' replies Halkett; 'but no one on earth could console me for—your loss. Why will you not confess the truth, Cissy, and'—

'Yet you once loved her, if report speaks truly,' interrupts Miss Mordaunt, still speaking carelessly, though her heart-throbs can almost be counted. 'In India, we hear, there was a time when you would gladly have called her your wife. Is it not so?'

Halkett drops her hand.

'Has that miserable bit of gossip taken root even here?' he says with a faint sneer. 'Has Blake been making his cause good by such rubbishing tales? Frances Leyton and I grew up together. I would as soon think of making love to my nearest of kin as to her. The idea of any romantic attachment existing between us is more than absurd! Besides, she is to be married to Geoffrey Hyde early in the coming spring.'

Miss Mordaunt severs a little twig from one of the shrubs, and takes it to pieces slowly.

'Then *she* did not give you your favourite mare?' she says quietly, detesting herself as she asks the question, yet feeling compelled to solve all her doubts at once.

'No; she did not.' A pause. 'Shall I tell you who gave her to me? It was my only sister, Lady Harley. She loved the Baby dearly, and on her death-bed, told me to take good care of the creature, for her sake.'

The twig falls from Cissy's fingers. Surely, surely it cannot be true! Oh, how he must hate and despise her for all she has said and done! It is too late now to make reparation. She feels she would rather die a thousand deaths than give in, and confess to all the wretched suspicions and jealousies she has been carefully harbouring in her heart during these two past days.

'However, all this is beside the question,' goes on Halkett; 'you have not yet told me what I so much want to know. Has Blake anything to do with your coldness to me? Tell me, Cissy, are you engaged to him?'

Cissy has not expected this, and growing suddenly crimson, lets her head droop somewhat suspiciously. Halkett's eyes are on her face. {460}

'No; of course not—I am not indeed.' There is a faint stammer in her speech as she says this, and Halkett's fears become certainties.

'But you *care* for him!' he exclaims vehemently. 'The very mention of his name has brought a flush into your cheeks. You hesitate, and turn your head aside. This then accounts for your sudden change of behaviour towards me! Having gained your point, you found your first victim in the way, and hardly knowing how to get rid of so troublesome an appendage, had recourse to— Had you told me point-blank my attentions were unwelcome, it would have been more womanly, more just'—

'Pray, do not say another word,' says Miss Mordaunt with dignity, though tears are in her voice and eyes; 'this is the second time to-night you have spoken words difficult to forget. Do not trouble yourself to return with me. I prefer going in alone.'

When Cissy and Halkett appear at breakfast the following morning, they take care to seat themselves as far as possible from each other, and presently it becomes palpable to every one that they are considerably out of sorts. Uncle Charlie suggests that Miss Cissy has over-danced herself, or given the wrong man his *congé*; a remark that has sufficient truth in it to bring the hot blood into her cheeks. While Captain Halkett, having run through his letters, declares he must return to town by the afternoon train; at which Mrs Leyton looks uneasy, and casts a covert glance at Cissy Mordaunt.

That young lady stands fire pretty well, but with all her hardihood cannot keep her under lip from trembling ever so little. This sign of weakness be assured does not escape the widow's tutored eye; and she instantly challenges Major Blake to a game of billiards after breakfast.

'My dear Frank, you can't go to-day,' says Uncle Charlie decidedly. 'To-morrow they have promised us the best run we have had yet. I will not hear of your leaving. Write and tell her you have sprained your ankle, and send her your undying love. She will forgive you when she sees you.'

'I wish I *could* stay,' says Halkett, laughing; 'but unfortunately my recall is from my solicitor, not from my lady-love.'

'I don't believe a word of it!' says Uncle Charlie. 'A sudden recall *always* means a woman. Why, when *I* was a young man, I thought nothing of'—

'My dear!' says Aunt Isabel, with a gentle uplifting of the right hand.

'Quite so, my good Belle,' returns Uncle Charlie, patting the soft white fingers. 'But seriously, Frank, she will do very well without you.'

'I have no doubt of *that*,' says Halkett, and raising his eyes meets Miss Mordaunt's full.

Half an hour later, Cissy, feeling mournful and guilty, steals round to the stables to take a last look at the Baby, as she is afraid to look at the Baby's master. Just as she is patting her and rubbing down the soft velvet muzzle, the door opens, and Halkett enters.

'I am glad to see she is so much better,' says Miss Mordaunt promptly but nervously, pointing to the injured limb. 'If you go to-day, you will not take her with you, I suppose?'

'No; I suppose not.'

'*Must* you go?'

Halkett glances at her reproachfully. 'Yes; of course I must. There is no other course left open to me. After what you told me last night, it would be simple madness to remain.'

'What did I tell you? I don't think I told you anything.'

'Well—what you led me to infer.'

'You should not infer things. *I* never meant you to do so.' As Miss Mordaunt says this in a very low tone, she turns her head aside and recedes a step or two. A dark flush rises to Halkett's brow, colouring all his face, even through the bronze an Indian sun has laid upon it. A sudden gleam of something akin to hope shines in his eyes for an instant, but is as speedily suppressed.

'Do you know what you are doing?' he says in a tone sufficiently unsteady to betray the agitation he is feeling. 'Do you know what your manner, your words seem to me to mean? Do not, I implore you, raise within me again the hope I have surrendered, unless— O Cissy, *you* will never know how cruel a thing it is to love without return!'

'But—are you sure—*your* love—has gained no return?' demands Miss Cissy in faltering accents, and immediately afterwards feels she has but one desire on earth, and that is for the ground to open and swallow her.

'Cissy, Cissy!' cries Halkett, '*tell* me you do not care for that fellow Blake!'

'Not a bit, not a bit!' says Cissy; and in another moment finds herself in Halkett's arms, her tears running riot over the breast of his coat. 'Oh, say that you forgive me!' she sobs. 'It was most hateful of me—about that bedroom candlestick the other night, and everything. But I misunderstood it all. I thought you loved Mrs Leyton. *Say* that you forgive me!'

'I will not hear a word about forgiveness now,' says Halkett, who has been assiduously employed in kissing her hair, brow, and any other part of her face that is visible. 'It is taking a mean advantage of me; I am so happy this moment, I would forgive my bitterest enemy without hesitation. By-and-by we will discuss the question, and I shall grant you pardon on my own terms.'

Some time before luncheon there comes a knock, low but decided, at Uncle Charlie's library door.

'Come in!' calls out the owner of the apartment; and the door opening admits Frank Halkett and Miss Mordaunt—the latter keeping well behind, and only compelled by the strong clasp of her companion's hand to advance at all.

'I have come, sir,' says Halkett mildly, 'to tell you I have, after all, decided on delaying my departure until next week, as I at first intended—if you do not object.'

'Indeed, indeed; I am glad of that,' says Uncle Charlie, just a wee bit puzzled. 'I need not say how welcome you are.—But what about the business letter, eh, and your hot haste to reach town? What has changed your plans, eh?'

'Miss Mordaunt,' says Halkett, with a mischievous glance at Cissy, who is hopelessly confused and horribly shamefaced, in the background. 'Miss Mordaunt has induced me to alter my mind.'

'Eh! what, what?' says Uncle Charlie, rising from his chair as the truth dawns upon him, and instantly sinking back into it again. 'You don't *mean* it! And all this time I could have *sworn* it was that fellow Blake!' {461}

And so were made happy a pair who, through a mutual misunderstanding, might have never come together again in this world; who, but for an accidental timely explanation, might have remained through life victims to Cross-purposes. Reader, remember that there are two sides to every story.

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## POLAR COLONISATION.

TOWARDS the end of February the Naval Committee of the House of Representatives at Washington reported a Bill authorising the American government to fit out an Arctic Expedition, which would establish a colony on Lady Franklin's Bay, and thence despatch exploring parties to the Pole. To influence congressional action in this matter, two or three pamphlets have been put forth in

America, and circulated among the members of both houses. In one of these, Captain Henry W. Howgate, U.S.A., advocates the doctrine, that to reach the Pole with the greatest certainty, and with the least expenditure of time, money, and human life, it is essential that the exploring party be on the ground at the very time when the ice gives way and opens the gateway to the long-sought prize. This, he affirms, can only be done by colonising a few hardy, resolute, and experienced men at some point near the borders of the Polar Sea.

The same idea, in a somewhat different form, is advocated by Mr R. W. D. Bryan, of the United States' Naval Observatory at Washington, who, at Captain Howgate's request, has expounded in a brief pamphlet his views in regard to the best methods of conducting Arctic exploration. Mr Bryan says that he has given the subject much thought for many years, and has carefully examined the rich treasures of Arctic literature. This study, and his own experience and personal observation during the *Polaris* expedition, have suggested to him a plan which seems comprehensive and practicable. He is opposed to all spasmodic efforts to reach the Pole, because the chances of success are not commensurate with the necessary outlay. Let a vessel, he says, be always ready at some advanced post to push forward whenever an opportunity offers, for it is well known to Arctic explorers that Polar ice moves, shifts its position, and breaks up, sometimes slowly, and at other times with great rapidity, and that its position and condition change from year to year; hence in the same place success in one season may follow the defeat of a previous one. If, therefore, a vessel be at hand when the movement carries the ice out of her path, she can advance; and if, unfortunately, she should have no such opportunity, her officers and crew, by their observations and their boat and sledge journeys, would be able to employ their time profitably; the chances, however, would probably be in favour of their finding some season sufficiently open to admit of their forcing the vessel towards the Pole. In connection with the ship which is thus to watch year by year for a friendly ice movement, Mr Bryan would have a station established on the land within easy communicating distance, and yet not so far north as to prevent its being visited at least once in every two or three years by a ship from the parent country. The plan, no doubt, is one which would conduce to eventual success; but we should fancy that even the hardiest enthusiasts would shrink from an undertaking which would involve their spending annually from four to five months in total darkness, even though 'the station should afford warm comfortable quarters for a corps of scientific observers and an active band of explorers.'

We cannot follow Mr Bryan through all the details of his original plan, but it will be interesting to glance briefly at a bolder and more comprehensive one which he develops towards the conclusion of his *brochure*. He says, and with reason, that a greater certainty of speedy success and the collection of scientific data beyond all measure more valuable, would follow the enlargement of the scheme he has propounded. 'Instead of establishing one station, and having but one ship watching tirelessly the mysterious movements of the ice, let there be many stations and many ships placed at intervals along the whole threshold of the unknown region.' To this, of course, the obvious objection arises that the plan would involve the expenditure of a large amount of money; but Mr Bryan is equal to the occasion, and perhaps taking a hint from the king of the Belgians' proposition with regard to African exploration, he suggests that the enterprise should be an international one, for in that case the burden upon any one nation would be comparatively light. Mr Bryan has gone further, for he has partitioned the work among the nations. Great Britain is to grapple with the difficulties of the Behring Strait route, and in addition, to take a turn at 'the eastern coast of Wrangell's Land or the western coast, or both.' This, we imagine, would keep Sir George Nares occupied for some time. For the United States is claimed the right to consider the Smith's Sound route as peculiarly its own; and the Germans are to undertake 'the eastern coast of Greenland, the route advocated so long and so well by their illustrious geographer Dr Petermann.' The Dutch are to take Spitzbergen for the base of their operations; the Austrians are to follow up Lieutenant Payer's discoveries in Franz Josef Land; and the Russians are to establish stations upon Novaya Zemlya and some of the extreme northern points of their empire. Italy, Norway, and Sweden, France, Spain, and Portugal have minor parts assigned to them; but hardy Denmark, oddly enough, is overlooked.

Mr Bryan thinks that the money laid out on these enterprises would be 'well invested, and would give an ample and speedy return in every department of human industry.'

Since the foregoing was written, intelligence has been received that arrangements are actually in progress for carrying out Captain Howgate's bold plan of prosecuting Polar discovery. The expedition, we hear, will be under the command of Captain Tyson, of *Polaris* fame, and it was intended that it should leave at once for the Arctic regions to select a position for the planting of a colony in 1878. The funds required for this advance voyage (about ten thousand dollars) will be raised by subscription in New York; and it is expected that Congress will in autumn appropriate fifty thousand dollars to cover the expenses of despatching the colony.

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## A FEW WORDS ABOUT POULTRY.

THERE IS NO species of live-stock less understood or less cared for than poultry. Almost every farmer and nearly every cottager in the country keeps hens, as well as a great number of people about the suburbs of all large towns; and strange as it may seem, if you ask them as to the profitableness of their stock, you will almost invariably be met with the answer that 'hens don't pay.' Many people of course never take the trouble to find out whether they pay or not, but go on



rehearsing the story of others who do take that trouble, and who find it an unprofitable job. With a large number of poultry-keepers this is really the case; and there must therefore be a certain fascination about fowls that induces such people to keep them. The secret probably is that fresh eggs being such an adjunct to the breakfast-table and to the making of savoury omelets and puddings, hens are kept to lay eggs, no matter how few, or at what cost. Some people, however, do make them pay, and pay well too; but it is only by properly directed intelligence being brought to bear on the subject, as well as by the exercise of a good deal of care and attention, that this object is attained. Many an amateur keeper of poultry is able during the spring months to sell as many eggs as he can part with at prices ranging from six shillings to a guinea per dozen—such eggs being the produce of prize poultry, and such prices being given in order to rear chickens from them. It is therefore principally amateurs, fanciers, and people who take delight in and bestow care and attention on their birds, that are able to reap satisfactory results from the rearing and keeping of poultry. If care and attention were not brought to bear on the rearing of horses and cattle, these would not pay either; but hens are, by farmers especially, usually considered too insignificant to bestow much trouble on; therefore they are often allowed to run about starved and ill cared for at one time, and glutted with food at another; while their roosting-houses from want of cleaning become so filthy that it is a wonder the birds so frequently escape the diseases which filth engenders, and to which the feathered tribe are so liable.

It is certainly not creditable to this country that the importation of poultry and eggs is so enormous, and probably few persons are aware of its extent. In 1875, the latest year for which the Board of Trade returns have been completed, no less than seven hundred and forty-one million of eggs were brought into this country; and the returns of the immediately preceding years shew that this importation has been making gigantic strides. Most of these eggs come to us from France; and when we consider that the French themselves are large consumers of both eggs and poultry, it may well be imagined to what an enormous extent our friends across the Channel develop this branch of trade or commerce. The advantage which our continental neighbours derive from it is obvious when we consider that not only eggs but fowls are largely sent over to us; and that about three millions of pounds sterling are now annually paid by Great Britain for these two staple articles of consumption. Farmers and poultry-keepers should lay this well to heart, and endeavour by some means so to increase the production of poultry and eggs, as not only to secure the retention of a large portion of this money in our own country, but to fill their own pockets with a portion of it.

In our observation and experience the point on which most ignorance prevails with regard to poultry is food. No attention or intelligence appears to be directed to the kind, quantity, or time of feeding that is most suitable; and nowhere is this ignorance more noticeable than at farmsteadings. At such places, hens are generally allowed to surfeit themselves with grain at one season, while they are starved at another. Now they do not lay well while they are either in the one condition or the other; for a starved bird has not the wherewithal to produce eggs, while an overfed one gets lazy and accumulates internal fat, to the extinction of egg-production altogether. Hens never lay so well as when they are kept in a state of activity, running after meat that is thrown to them, or searching and scratching for it among earth or rubbish. After moulting-time, or when hens have been as it were resting from laying eggs, one of the first things that to a keen observer heralds a speedy return to that state, is the restless activity with which they scrape and scratch the ground. When their courts or haunts bear evidence of this by the holes which they make, laying is not far off. A happy medium in feeding produces the best results with poultry; and a golden rule is never to give fowls more at a time than they will greedily pick up. Indeed they should always be made to leave off before their appetite is satiated. Their meals should be given regularly, and should be thrown on the ground to them, not left in wooden troughs, which readily sour and taint the meat. But whether given on the ground or otherwise, not a particle should be allowed to lie over, for nothing injures hens more than stale food.

The number of meals in a day may vary according to circumstances, but for adult fowls no more than three should ever be allowed. Where hens have full liberty to roam about a farm-yard or in fields, only two scanty meals should be given both in summer and in winter—one in the morning as early as possible, and the other about an hour before they go to roost in the evening. Birds which are confined to courts or runs should have a more substantial meal—not later than nine o'clock in the morning in winter, and an hour or two earlier in summer, with a pick of something at mid-day, besides their evening feed. Grain of some kind should always be given them at night; wheat, rough barley, or oats, are all good, but ought to be used singly, not mixed; and it is well occasionally to change the variety. Indian corn seems to be more relished than any other grain, but should be sparingly given, and never longer than a very few days at a time, just for a change, as it has a very fattening tendency. The morning meal may consist of table-refuse of any sort mixed to a proper consistency with sharps, middlings, bran, or barley-meal. The mixture should neither be too sloppy nor too hard, but such as if thrown on the ground in a lump will break into bits, not crumble down into a state of powder. Potatoes are bad to use in large quantities, for like Indian corn they are too fattening; boiled turnips, however, may be used with advantage for mixing. In winter it is best to give the morning diet warm, with an occasional sprinkling of pepper during very cold or wet weather. A very little salt may likewise be added. The mid-day pick may either consist of the morning's remains or a little grain; but on no account should soft food be given after it has stood for any length of time. It can be mixed up at night, but what is then prepared should all be used up on the following day. Grass or green food of some kind is requisite to keep poultry in good condition; and if the birds have not free access to it, a little cut up and mixed with their food, or a cabbage or lettuce hung up with a string just within reach of the birds, so that they may get at it with a little trouble, is a very valuable accessory to the dietary. It

is absolutely necessary that green food be given regularly, if fowls are expected to thrive; but the amount of it need not be great; only if it is left off for a time and then resorted to, or given in too large quantities, it is likely to cause diarrhoea.

It is very difficult to define the exact quantity of food that ought to be given to hens, and it is well to remember that at some seasons they will eat much more than at others; but as a general rule for those in confinement, a ball about the size of a duck's egg in the morning, half of that at mid-day, and an average-sized handful of grain at night, is about the proper quantity for each bird; and less than that of course for those that have fields or farm-yards to roam in. The tendency with most poultry-keepers is to feed too well, and it is generally very difficult to get them convinced of this, for hens will go on eating long after they have had enough; but the consequences are always bad, such as accumulation of internal fat and the laying of soft or shell-less eggs. This latter disease—for so it may be called—is a very common effect of over-feeding young hens, and is sometimes not observed till it has existed for some time, as such eggs are often eaten by the birds as soon as laid, and if they are not caught in the act, those who keep them may be none the wiser. The quickest and most effectual way to cure the effects of over-feeding is to administer a good dose of Epsom salts in their soft food in the morning, and to starve them till the following day. Indeed such treatment to overfed fowls that have gone off laying will often bring them into that condition again at once. Poultry should always have access to plenty of cool fresh water; and if the dish containing it cannot be kept in a cool or shady place, the water should be frequently renewed, especially in warm sunny weather, for nothing is worse for hens than sun-warmed water. It is also important that a handful or two of small stones or gravel be occasionally thrown into their runs, if the ground itself is not gravelly, for hens swallow such stones to assist the gizzard in triturating their food. It is considered that lime or old mortar is necessary for the production of egg-shell, but we cannot speak authoritatively on this point, for we have kept hens for years, and never yet saw them swallow a piece of mortar, although they have access to it; but we are bound to admit that oyster-shells, broken up small, are at certain times swallowed with great avidity, if fowls can obtain them.

Next to the importance of good systematic feeding, if not even before it, ought to come cleanliness. Some people never think of cleaning their hen-houses and hen-runs; but it ought to be carefully and regularly done; and the inside walls and roosting-bars should be whitewashed at least twice every year. In connection with this, it may be mentioned that nothing is worse for a hen-house than a wooden floor, as it soon gets saturated with their droppings, and becomes rotten, when it is impossible to clean it. A stone or cement floor, or even an earthen one, is greatly superior to one made of wood; and if such a floor be kept thickly strewn with fine coal-ashes, sand, or dry earth, this helps to deodorise the dung, and is easily cleaned—besides the whole makes a very valuable manure, which can be used in the garden. The floor or ground of the court or run should be earth, the surface of which can be lifted off occasionally with a spade, and then dug up to freshen it. At such times, the birds will get a feed of worms, which will do them much good.

Fowls clean themselves by means of dust; and if they have not access to it, they readily become infested with a species of small lice. Finely riddled coal-ash or dry earth laid in a sheltered corner of their run will answer the purpose. It should be renewed occasionally, and a little flowers of sulphur or carbolic powder sprinkled on it. It is very amusing to see the birds lying in their baths and shaking the dust all over and through their feathers. They seem to take great delight in this occupation.

The variety to be kept depends on circumstances, that which suits one locality being unsuitable in another. Many people keep what are called barn-door fowls, that is, a cross of all sorts of breeds, but experience shews that such fowls are not profitable either for the table or for laying. Occasionally one hears that there is nothing like them for laying; but those who speak thus have seldom much experience of pure breeds; and because they now and again find cross-bred birds laying remarkably well, they are too apt to sound their praise. A first cross between two pure breeds, such as the 'Dorking' and 'Spanish,' or 'Game' and 'Spanish,' sometimes produces very fine profitable fowls; but if these are again allowed to mate with other crosses, the progeny always degenerates. The Dorking is perhaps the most common and well-known variety in this country, and holds a good reputation for size and quality as a table bird, also for its laying powers. It does not thrive, however, in all localities, requiring a dry soil and extensive range to roam on, and is essentially a farmer's bird. Dorkings make good sitters and mothers. The variety is bred to perfection, principally in the counties of Sussex and Surrey. The general favourites of 'fanciers,' owing to their symmetry of form and beautiful plumage, are the several varieties of Game; but they are somewhat troublesome to keep, owing to their fighting proclivities. Spanish hens are good layers of large eggs, but the breed is a delicate one, difficult to rear, and difficult to keep in health. Cold and damp affect them much; but they sometimes do well in confined runs, if these are dry and sheltered and their houses warm. 'Brahmas' and 'Cochins,' two Asiatic breeds, created quite a sensation on their first being brought to this country about a quarter of a century ago, and large prices were then paid for them. As chickens they take a long time to grow, but ultimately attain great size. They are both good layers, especially in winter, when eggs are dear, but are inveterate sitters; and the time lost by this propensity often neutralises the profit which might be made from their egg-producing qualities. 'Hamburgs' lay numerous eggs of a rather small description. The French varieties have been gaining ground in this country for some years back, the 'Houdans' being splendid table fowls, with good white flesh and small bones. They grow very fast as chickens, but do not generally begin to lay till well matured. 'Crève-cœurs' also grow quickly to a good size, but have not much reputation as layers. The latest breed—which, however, has not been known in this country more than a few years—is the 'Leghorn,' for

the introduction of which we are indebted to the Americans, who imported the first birds of the kind from Leghorn about twenty years ago, and have since then been improving the variety. It would appear to excel most others for early development and splendid laying powers, and is fast taking a prominent place with poultry-keepers. Prize birds of all distinct varieties are very valuable, sometimes fetching as much as twenty-five pounds for a single bird to shew and breed from.

It is a great mistake with some people to keep too many birds, and we have noticed again and again where a keen amateur has very reluctantly been persuaded to kill off or dispose of a portion of his stock, that instead of his egg-basket suffering owing to the fewer birds kept, it has actually become fuller than before. Only a certain quantity can be kept on a given space, and if more than this is attempted, failure must be the result. The proper number can be arrived at only by experience, but no cottager with limited accommodation should attempt to keep more than about half-a-dozen. The worst layers should be killed after their first season's laying, just before they commence to moult or cast their feathers—say about July or August; for if allowed once to begin this process of renewal, they are useless for the table until the whole of the new feathers grow again; and this sometimes occupies months, during the whole of which time laying is generally suspended. The best, however, should be kept over their second season's laying, and then killed before moulting; and none but the very best should ever be allowed to see a third season, for age is a very unprofitable and increasingly unprofitable possession. From one hundred to two hundred and fifty eggs may be expected from a good bird in the course of a year; and those which lay less than a hundred are not worth keeping. It may be mentioned that the addition of a cock to the run makes no difference in the number of eggs which the hens will lay; it is unnecessary, therefore, to keep a cock unless chickens be desired.

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## THE WALMER LIFE-BOAT.

HARK! a distant gun is sounding  
O'er the waters, wildly bounding;  
Raging waves are fast surrounding  
Some wrecked ship to-night.

On the shore the breakers, roaring,  
Loud as thunder now are pouring;  
Far a signal high is soaring,  
Like a phantom light.

Moon and stars their aid denying,  
E'en to seek the living—dying—  
Who, to prayers and tears replying,  
Will the tempest face?  
Oh! for some brave ocean-ranger,  
Who would, through the cold and danger,  
Go to save, perchance, one stranger!  
Silence, for a space.

Hark! the Life-boat bell is ringing,  
Gallant men are wildly springing,  
Life and home—their all—they're flinging,  
So the lost they save.  
Rockets now are brightly flashing;  
Through the shingle sharply crashing,  
Off the Life-boat's swiftly dashing.  
Heaven guard the brave!

Through the night, that wanes so slowly,  
'Little ones,' in accents holy,  
Mothers, wives, in dwellings lowly,  
Breathe their heartfelt prayer.  
When the stormy sea is swelling,  
Aching hearts in regal dwelling,  
All their pride and power quelling,  
Kneel as helpless there.

While the torches, dimly burning,  
Shew the tide at last is turning,  
Hundreds wait, for tidings yearning,  
Watch, with eager eyes:  
See! the first faint glimpse of morning  
The dim eastern sky adorning;  
Hark! the soldiers' bugle, warning  
That the sun doth rise.

Then a little speck grows clearer,

Draws—it seems but slowly—nearer,  
Seen by those to whom 'tis dearer—  
Known by them too well!  
Brighter now the morn is growing,  
Clearer, still, and clearer, throwing  
Light upon the billows, shewing  
'Tis no dream we tell.

Fast the fatal sands they're leaving;  
Hail! the Life-boat, proudly cleaving,  
Where the angry sea is heaving  
Mountain-waves of foam.  
Onward, homeward, quickly nearing,  
'Mid the ringing, deaf'ning cheering,  
Loving words of welcome hearing,  
Greet the conquerors home.

Far away the wreck is lying;  
But they bring, 'neath colours flying,  
Five poor Frenchmen, spared from dying,  
Safe to England's isle.  
English hands they're warmly pressing,  
English children they're caressing,  
Asking, praying, Heaven's blessing,  
With a tear and smile.

Simple words tell acts of daring—  
Unknown heroes laurels wearing,  
Brother-like all honour sharing,  
Now and evermore.  
Speed the Life-boat, England's daughters;  
Bless her path across the waters;  
Tell her gallant deeds of glory;  
Spread the truthful, noble story,  
Far from England's shore!

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