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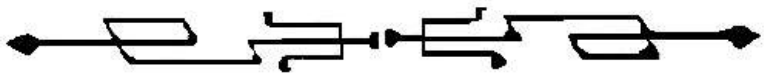
*** START OF THE PROJECT GUTENBERG EBOOK A REVISED AND ILLUSTRATED TREATISE ON GRAIN STACKING ***

A Revised And Illustrated Treatise On Grain Stacking

GIVING
Instructions how to Properly Stack Bound Grain so as to Preserve, in the best possible manner, for THRESHING and MARKET.



ILLUSTRATED
So as to Furnish a Comprehensive View of the Theoretical Parts

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JOHN N. DeLAMATER,
NORWALK, OHIO
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PREFACE.

So far as I am aware, this is an untried field of labor—a work which I have had under consideration for the last fifteen years; during which time the closest attention has been given to details of building, and careful observations made on results, when the stacks were being taken down.

JOHN N. DELAMATER.

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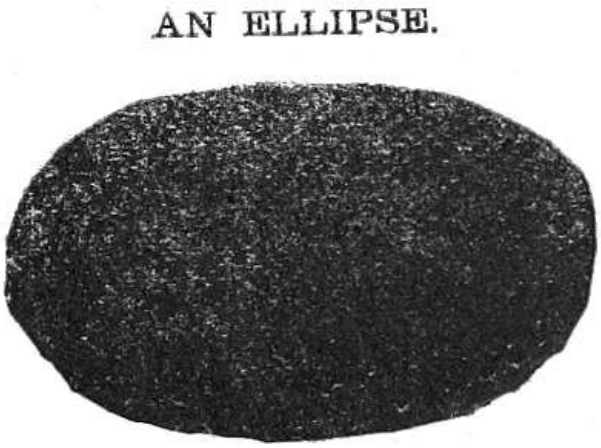
[5]



AN ELLIPSE.

TREATISE ON GRAIN STACKING.

PLACING FOUNDATION.

If convenient, make a foundation of rails, by placing three rails about four and one-half feet apart and parallel, and then add half or two thirds the length of a rail to each, and cover by laying rails crossways, and finish by laying a large rail or post in the center lengthways.

This will form a foundation large enough for ten or twelve large loads. If rails, poles or boards cannot be had for an entire foundation, endeavor to get something to support the heads of a few center sheaves; for if sheaves are set on end to commence a stack, the middle is apt to settle too much.

COMMENCING TO BUILD.

On the rail foundation, lay around the center in the form of an ellipse, with the heads lapping well across the center rail; lap half and continue to lay towards the outside until foundation is covered. Now commence at the outside and lay a course around, neither laying out or drawing in, [6] except to correct any little error that may occur in the elliptical form of the stack; complete the courses to the center, but don't fill the middle too full; if the outside is lower than the middle, lay a double course around outside; keep your stack *flat*—full as high at outside as center; build the first load straight up, neither laying out or drawing in, if the stack is to contain ten or twelve loads; (See figure 1) if eight or nine, lay the last course out a little.

FIGURE ONE.

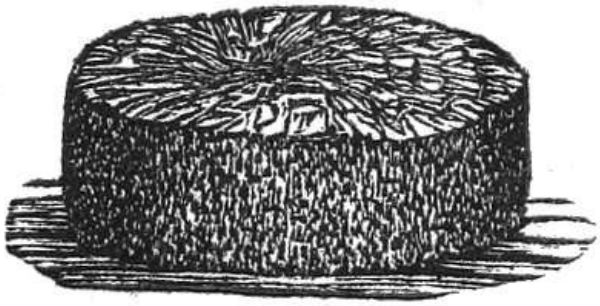


FIGURE ONE.

LAYING OUT.

If the stack is flat and as near an ellipse as the eye can judge, laying out and keeping the stack properly balanced will be very easy. Drive alternate loads on opposite sides of the stack; this will help to keep the stack properly balanced. If the eye detects a place that seems to be lower than the general level, it will be found that it was caused by laying out more there than at other [7] points; to remedy this defect, draw in the next outside course at the low point, six, eight or ten inches, according to the depression. The greater the depression, the more it should be drawn in, and the next inside course at the low point should be shoved out nearly to the buts of the outside course, (See figure 2) then continue to build as though nothing had happened. If a high place should be observed, the next outside course should be laid farther out, and inside course at this point drawn well in. (See figure 3) [8]

FIGURE TWO.

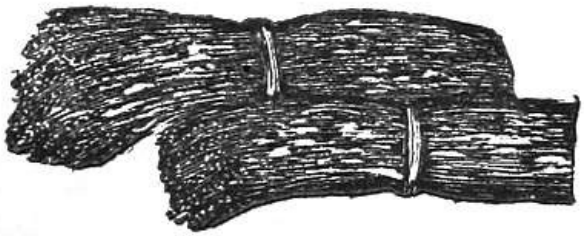


FIGURE TWO.

FIGURE THREE.

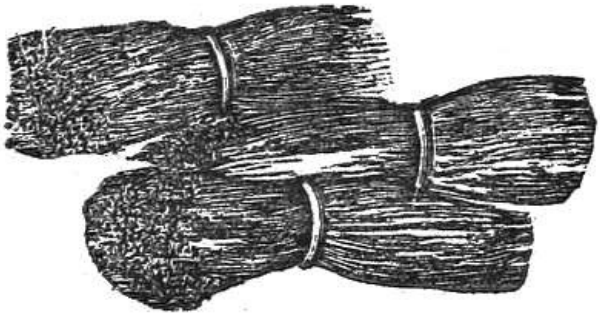


FIGURE THREE.

Glance frequently over the stack and see if the outside presents the appearance of an ellipse, and keep a sharp lookout for high and low spots, for they will throw the stack out of balance. If the middle is too full, the outside will slip out, and an undesirable job of propping will begin. Put in two-thirds of what is intended for the stack before commencing to draw in.

FIGURE FOUR.

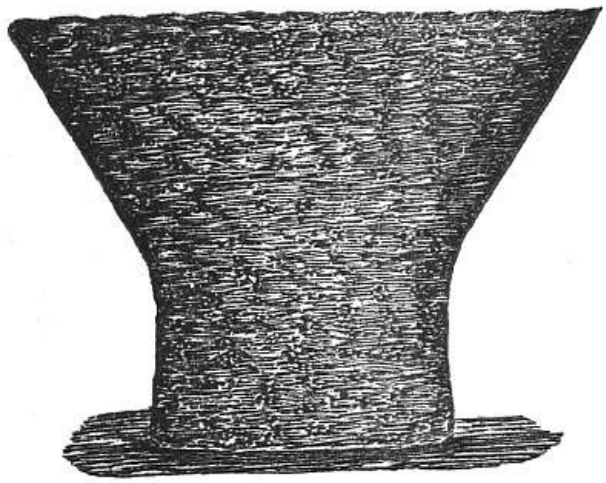


FIGURE FOUR.

Drive so as to leave a little space between load and stack. Don't let a stack stand over night at this stage if it can be avoided, (See figure 4) but put on the next two loads as quickly as possible, for the outside of the stack will settle rapidly. [9]

FILLING THE MIDDLE.

FIGURE FIVE.

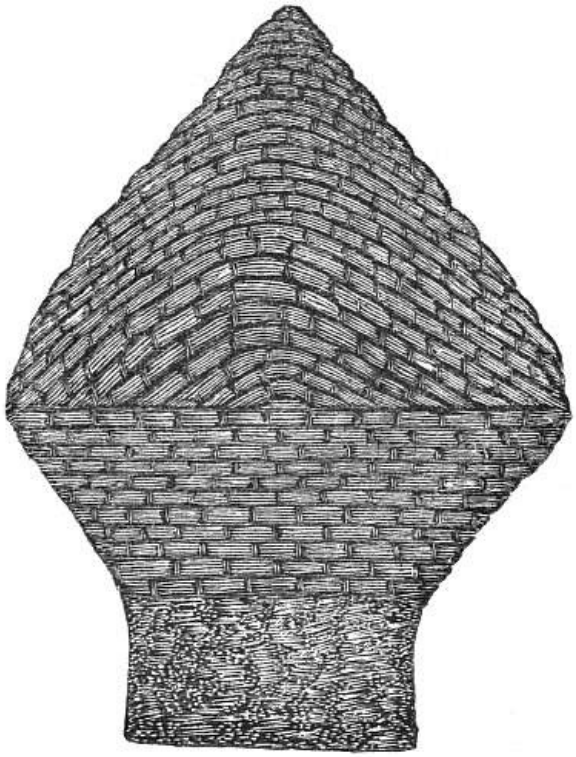


FIGURE FIVE.

Lay a tier of bundles through the central part half the length of the stack, alternating heads and buts, then lay a course around with the heads lapping across the middle tier; now another tier through the center, and two courses around it; then another tier at center and courses around, until the center is three or four feet higher than the outside, depending on size of the stack, and the last course laid laps half way from head to band on the outside course of the stack. It will be seen that while building the main part of the stack, the courses were laid from outside to center, and while filling the middle or putting in the stuffing, the courses are laid from center towards outside. Now commence outside, lay a course, heads out, half way from band to but on outside course; in small stacks omit last instruction; then turn buts out, lap half and lay to center; then lay a course around outside, neither laying out or drawing in. [10]

FIGURE SIX.

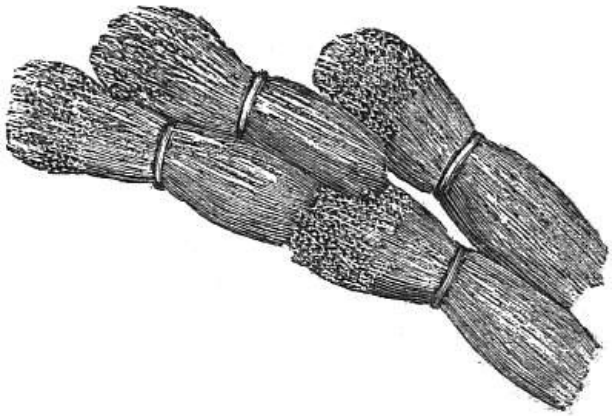


FIGURE SIX.

Now comes a point that should not be overlooked: lay a course, buts out, lapping half way from heads to band on outside course; then lap half and lay to center. [11]

The reason for laying the buts of second course half way from heads to band is to give the buts of the next outside course above a chance to rest firmly on the course below, leaving no unoccupied space; if the buts of second course were laid out to the band of outside course, then the next outside course above, being drawn in, would rest one-third of the way from band to but, on the buts of the course below, leaving a space for rain to drive in and wet the stack. Draw in outside course rapidly (See figure 6); lay buts of second course half way from head to band on outside course as long as stack top is large enough; keep middle well piled up.

A stack can be drawn in very rapidly, without danger of taking in water from a protracted rain, even if the outside of the stack grows green, no sheaf will be found wet above the band, and the middle of stack dry, for the buts of outside course will form a thatch roof to protect the stack.

The placing of a few top bundles is a matter of small importance. If a stack has been properly built it will receive but little injury if top bundles should blow off. A strand or two of wire, with sticks or stones at the ends to weight them down, will usually hold the top in place.

RECAPITULATION.

The first load being built straight up and flat on top forms a firm and secure base on which to build the upper structure. [12]

LAYING OUT OR PUTTING IN THE BULGE.—This is the most important part of the stack, for it contains the greater part of the grain; by laying out and keeping the stack *flat*, the work can be done rapidly, and when the stack settles the buts will hang down, for there is nothing to hold them up.

FIGURE SEVEN.

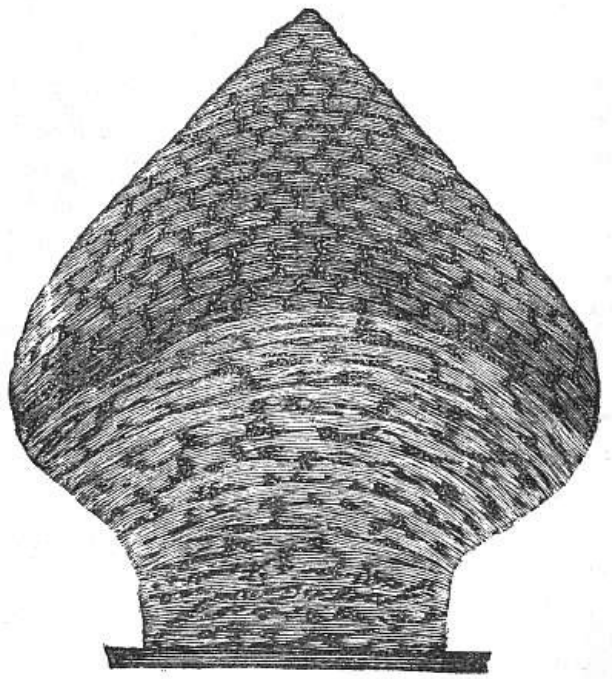


FIGURE SEVEN.

Filling the middle corresponds to putting rafters on a building to support the roof. [13]

SUGGESTIONS.

I have found in the course of a long experience, that a foundation eleven or twelve feet wide

and eighteen or twenty feet long, and a stack built in the form of an ellipse, and so as to contain ten or twelve large loads, to be the most convenient and economical. Grain can be put into a stack of this size much more rapidly than in small stacks. If a stack is built much larger it will require more labor to pass the bundles across the stack, and will have to be carried much higher before it is topped out, which takes time and hard work.

The elliptical form I have found the best; with a load driven to the side of the stack, the pitcher is never very far from the stacker; the stack is easily kept balanced, and at threshing time the grain is readily got to the machine. In a round stack of the same size, the stacker gets farther away from the pitcher, and it requires more skill to keep a round stack properly balanced; but if a round stack, after it is finished and settled, looks like an egg standing erect on the large end, that [14] is good enough; it will not take water, and looks well, too. A square stack, or one with corners, is easily kept balanced, but in turning the corners there is too much fullness at the heads of the bundles, and when the stack settles there will usually be a sag on each side to catch water.

Two stakes, one eight and the other ten rods away, and in line with the center of foundation, will sometimes assist the stacker in keeping his stack well balanced, for at a glance he can tell whether the center is in line with the stakes. A man may build, as his fancy dictates, either round, elliptical or square, but in *all*, the same general principles *must* be observed—the lower part of the stack built straight up; put in a bulge which settles down around and nearly conceals the lower part, leaving the center of the bulge high; filling the middle to support the center of the top. These are the principles on which good stacking depends. If a man gets them well fixed in his mind and discards the idea that he must keep the middle full from the ground up, he will have but little damaged grain, even in the very worst of seasons. Very small stacks should be built like ordinary stack tops. [15]

A boy to hand bundles is usually more damage than good until a stack is half built, and then he should not be allowed to stand on outside course. If practical, drive alternate loads on opposite sides of the stack; this is very desirable, but if, from the nature of surroundings, it is necessary to drive all on one side, draw the top of the stack over a foot or two towards the side where the unloading is done, and keep it a little the lowest; the opposite side will settle considerably the most, which will leave the stack straight up.

FANCY STACKING.

For a pyramid stack, build as usual up to within two or three rounds of where drawing in commences, then draw in a little at center of sides and ends to bring the curves to straight lines; keep the corners well out, observing the form of a rectangle in filling the middle, and finish to top.

For a Gothic stack, build an ordinary one until commencing to draw in, then draw in the oval corners and build center of sides and ends straight up. For an X stack draw in sides and ends; build corners straight up. These stacks look very ornamental on a premium farm and will save well, but take more time to build than ordinary stack tops. [16]

SAMPLE STACK.

With some, the idea seems to prevail, that the middle of the stack should be kept full from the ground up. With the center high enough to protect the stack after it is settled, it is impossible to lay out or even build straight up, for the outside sheaves are constantly slipping out, and the process of building rendered slow and tiresome, and when the stack is completed and settled, it will usually be found that the center has gone down so much and the outside so little, that the buts of the sheaves stick up and form excellent conductors to wet the stack.

Usually at harvest the country is full of good stackers, and if, between that time and threshing, there is little or no rain, they live through and there is a good supply next year; but if, between stacking and threshing, a protracted rain occurs, vast multitudes are drowned, so that, at threshing time, but few good stackers are found alive.

*** END OF THE PROJECT GUTENBERG EBOOK A REVISED AND ILLUSTRATED TREATISE ON GRAIN STACKING ***

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