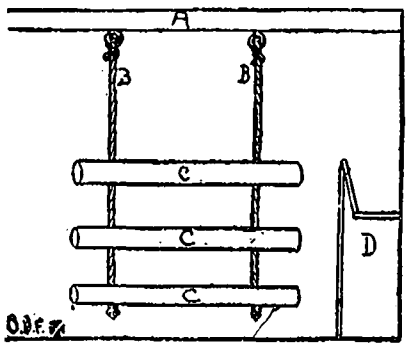
Stall Partition.

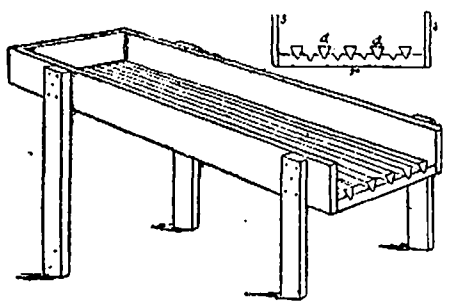
SOMETIMES a farmer is short of stable room, or if he has plenty of room there are no stall partitions. With the design here given, a box stall, shed or part of a barn floor can be utilized for stalls without danger of the horses kicking each other. The design is by Henry L. Tell, Belleville, Mich: Get three round poles eight



or nine feet long and four or five inches in diameter. About 18 inches from each end bore a hole large enough to allow a ½-inch rope to pass through. String the poles on two ropes tying a knot at the under side of each pole at the desired height so the poles will be parallel and about 1½ feet apart. Suspend this between the horses from above by tying the rope to the joist. Staples can be driven in for this purpose. Keep the lower pole about twenty inches from the floor. Two-inch boards or 6 x 8-inch joists will answer if poles are not at hand. In the illustration presented herewith, *a*, is the joist from which the partition is suspended; *b*, *b* the ropes; *c*, *c*, *c* the poles, and *d* the manger.

Potato Sorter.

IN sections where quantities of potatoes are raised, some kind of a sorting apparatus is a necessity. The work of picking over potatoes is something that costs too much to be done by hand, and yet potatoes classed into even sizes always sell better than in uneven lots. In the great centers of commercial production assorting is always done by some sort of a machine, which varies in the different sections, but is almost always homemade. The one herewith illustrated, from sketches by L. D. Snook, is in use in New York State by many potato planters, and is a simple and inexpensive affair, and being adjustable it will be found more valuable than many other designs. The general form is usually made eight feet in length, fourteen inches wide at the bottom, and eight inches



DEVICE FOR ASSORTING POTATOES.

at the top, the sides being six inches high, and the whole supported by four legs nailed to the sides. Six strips eight feet in length, three inches wide and one inch thick form the bottom of the sorter seen in the sketch. The strips, *a*, are bevelled to a sharp edge at the lower side, and the rest in V-shaped notches cut into the supporting strip, *r*. By taking out or adding to the supporting strips and dividing the spaces, larger or smaller potatoes will pass into the different boxes placed along the length of the sorter, the larger ones being discharged at the lower end, the form of the bottom strips preventing clogging. An incline of twenty inches in eight feet will prove about right, although the form of potatoes to be screened will have much to do with this, a long tuber requiring a steeper incline than a round one. If the potatoes are to be placed in the cellar one may shovel directly into the sorter, which should project from the cellar window, and when the tubers reach the cellar bottom they will be properly screened for market or planting. This will prove as effective as hand sorting and incur but one tenth of the expense.

The Harvey Motor.

THE experiments of Mr. F. H. Harvey, of Douglas, Wyo., in the matter of raising water for purposes of irrigation have been attracting more than usual attention. He has been operating on the Platte river, in Wyoming. The river alternately runs in level stretches of several miles in length, and then over short ripples with a fall of from thirty to sixty inches.

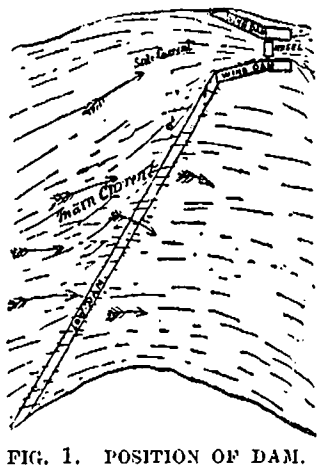


FIG. 1. POSITION OF DAM.

Mr. Harvey has located his motor on one of these ripples, and is now watering 200 acres with it, and he claims it has a capacity for 500 acres. The river is about 850 feet in width at this point, and makes a sharp curve at the head of the ripple. A low dam of piles and loose stones was built, starting at the head of the ripple and running diagonally from the right

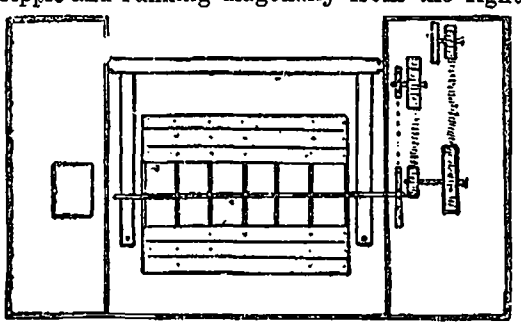


FIG 2. FRONT VIEW OF MOTOR.

bank of the stream to a point about 150 feet from the left bank. From the end of this dam a strong wing dam, 10 feet wide and 12 feet high, was built at an angle of about 20 degrees toward the shore for 50 feet, and then for 12 feet directly down the stream. A similar wing dam

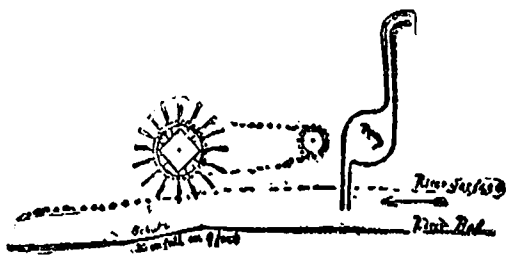


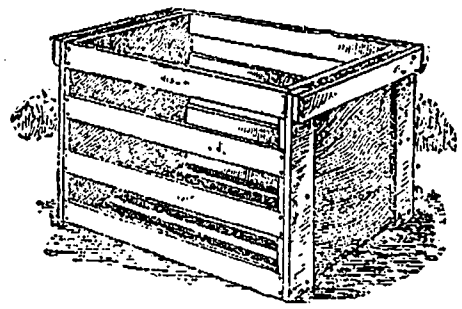
FIG. 3. END VIEW OF MOTOR AND PUMP.

was constructed from the shore, the two forming a letter Y, with the stem down stream. The main current of the stream passes over the dam, but the side current goes to the Y, where the water wheel, a combination of the undershot and breast wheel, is placed. With a wheel ten feet in diameter and 14 feet long, 60 horse power is secured, which operates a 3½ inch centrifugal pump, which raises 1000 gallons of water per minute to a height of 16 feet. The same power will run a five-inch pump, raising 7000 gallons per minute. The wheel is hung on a swinging frame, and is balanced by a counter weight, and its gearing is a sprocket wheel, enabling it to be raised or lowered to fit the rise or fall of the river. The plant, it is said, can be put in for about $800.

The affair is a complete success, and will no doubt be largely imitated. The accompanying illustration, Fig. 1 gives a clear idea of the position of dam, Fig, 2 the wheel, and Fig. 3 shows a cross section of the wheel and its connection with the pump.

Useful Crates.

THE grower of apples and potatoes has long recognized the advantage of placing these products direct from tree or furrow into convenient crates in which to store them away for the winter in the cellar, or to haul them to market. The tubers are protected and the good condition of the product secured. The objection usually is that a large number of crates is required where one's potato field is extensive, but well-made crates once provided will last almost a lifetime, and become better and better appreciated the longer they are used. The particular



crate illustrated here has solid ends and slat sides and bottom. The ends have two upright cleats and a horizontal cleat at the top, which forms a handle on each end, by which the crate is readily carried. Cut nails and spruce boards would best be used in the construction of these crates, for cut nails and spruce lumber do not readily part company. The crates can be made in bushel or two-bushel sizes, as preferred, being made of such a size in length, breadth and height as will make them fit most economically into one's cart or farm wagon box, taking care always to keep the cubic contents the same as that called for in a bushel or two-bushel measure. Where one is hauling his crops direct to market, such crates will help very materially in selling the crops, for if the dealer can receive them in the crates, pile them up in his cellar without emptying, and bring them up and sell them from the crate as wanted—when the empty crate can be stored away for its owner, he will be much better pleased, and will often accept produce thus crated in preference to the offering of another which must be handled over at least twice, increasing labor and injuring the fruit. The making a supply of such crates will afford occupation for some rainy days, when other work cannot be done.

Do not allow dug wallows to be made around the watering tanks, as troughs; in addition to to the filthiness, there is danger of injury from falling later on.

THE farm chores form the principal work of the agriculturist during the winter months that are now upon us. There are few farmers but what consider doing the chores as work, although the labor might seem to an outsider as a species of recreation. Labor is sweet to just such a degree as we take interest in it, and so it is with the duties involving the winter side of farm work.