

WHAT THE WORLD'S BIGGEST USERS HAVE TO SAY ABOUT CREAM SEPARATORS

Lincoln, Neb., December 4, 1905.

Our separator experience dates back about ten years. At that time the De Laval Separator was already recognized as the best machine; though its superiority was not quite so fully established as it is at the present time. In those earlier days, through the purchase of other creameries in which the machinery was already installed, we had opportunity to use various other makes of separators; however, none of them did the work as well as the De Laval either as to capacity for clean skimming or ease and simplicity of operation.

Before the advent of the hand separator the Beatrice Companies operated between five and six hundred De Laval power separators and there were many instances where our experience led us to deliberately replace some other make of machine with a new De Laval, paying good hard-earned money for same.

There is no disputing the fact that the De Laval power separator is a better machine in every respect than any other make. Since the hand separator came into general use in this western country we have had further opportunities to make comparisons and in our opinion there is no other machine as yet manufactured which compares with the De Laval in capacity for skimming, clean skimming, ease and simplicity of operation.

The large "Alpha" De Laval machines we owned and operated in years gone by have practically all left our territory, having been sold as second hand machines to creameries in the East, where the whole milk system is still flourishing, but to replace these larger machines we have in the past five or six years, sold to farmers throughout these western states and territories approximately thirty-five thousand De Laval Cream Separators which are operated by hand or tread power.

BEATRICE CREAMERY COMPANY,
By W. F. Jensen, Secretary.

If the above is the kind of experience you would profit by, a De Laval Catalogue and any desired particulars are to be had for the asking.

THE DE LAVAL SEPARATOR CO.

14 & 16 PRINCESS STREET, WINNIPEG

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SINK WELLS FOR DRAINAGE

In connection with the suggestion of one of our correspondents some time ago, that it might be possible to drain much of our land through wells, Mr. G. F. Root of northern Alberta sends the following, taken from an Iowa contemporary, being a synopsis of an address delivered by a Mr. M. D. Walcott of Iowa. Mr. Root says there is no better authority on this subject in Iowa, and that his system of sink wells and tilage works perfectly.

As there appears to be quite a number of people interested in drainage through wells or artificial sinks in the ground, and as it is a very economical method where feasible, of getting an outlet for farm drains, I will give the methods used so successfully in this part of the state. This plan of drainage is not new, but was used successfully in Florida in draining swamps twenty-five years ago.

The first sinks here were put down about ten years ago. There were two of them drilled about ten rods apart, on a half section of swamp land where the water generally stood from one to five feet deep. They were connected with tile so that, what one sink failed to remove flowed into the other. This land is now well tiled and produces some remarkable crops. If the sink method of drainage had not been used it would still be a slough, as the other outlet would be too expensive.

In order to use sinks as an outlet for your drainage profitably, there must be limestone rock beneath the surface. Here it varies from ten to eighty feet to rock. If the stone is not within 50 feet of the surface the cost would be excessive. In this locality there is a strip of country from four to ten miles wide in which there are over 100 of these drains in successful operation, and eight out of every ten drilled for that purpose are successful.

If you do not get a drain at 150 feet you had better abandon the hole, move the machine a few rods away and try anew. Below 150 feet the stone is more solid and there are fewer fissures in it. A good sink is always a good well, but a good well is not always a sink, for the well may be only a sort of reservoir for underground water, while the sink must have an underground stream for an outlet and get air somewhere, or else every little while the air will have to find vent, which it does by blowing the water out of the top of the hole.

Most of the sinks are curbed in the earth with six-inch gas pipe, which costs fifty cents per foot, and the driller charges fifty cents per foot for drilling in the dirt. He also charges \$1.50 in the stone down to 100 feet, then he raises his price twenty-five cent per foot for each additional twenty-five feet he drills. If he does not obtain a sink he charges half price, but 80 per cent of the sinks drilled are capable of draining a quarter section of all the water the tile will bring to it.

Several parties have tried draining into wells bored into the gravel and they have all proved failures for the reason that the fine silt and sediment carried into them soon clogs the gravel the same as if it had been filled with cement. Now, if I lived in a limestone country and wanted to try for a sink, if possible, I would first choose a location where the entire farm could be drained to it. Then I would figure the watershed that would drain into it, making due allowance as to whether there were sloughs holding large bodies of water or just the ordinary soil drainage. To be profitable your tile must be of such size as will remove at least one-fourth of an inch in depth of soil water from the entire watershed in twenty-four hours. Then it is but a simple calculation as to the number of cubic feet of water your sink will have to carry off every twenty-four hours as long as there is surplus water in the soil. You can then calculate the size of the hole you want drilled; no matter how deep you go the amount your sink will carry off is governed by the fall the first second, which is thirty-two feet.

To find the capacity of your pipe, multiply the square of its diameter by the decimal .7854 and that product by twelve, which gives you cubic inches per foot in length. This multiplied by the velocity per second will show you what your sink will care for.

On my farm I have a sink 100 feet deep, fifty feet of which is in the rock,

with a five and five-eighths inch hole that takes care of all the water that 2,600 rods of tile on 360 acres brings to it, besides the seepage from a large bed of quicksand through which I had to sink my catch basin.

See that your driller fits the curbing through the dirt into the stone tightly, as you want the entire capacity of your sink for the tile and surface drainage, not for some water vein in the dirt or gravel which is liable to monopolize your sink to the exclusion of the water from the top. This is important. Then dig a catch basin about five feet in diameter and of such depth as will allow your inlet pipe into your sink to project above the bottom of the basin at least two feet, and still be two feet or more below the lowest tile. This makes a basin to catch the sediment that comes through the tile, otherwise it might in time fill your sink.

Curb your catch basin well, either with masonry or two-inch planks, put a good cover on it, so fastened that mischievous boys or malicious persons could not uncover it easily and fill the pipe with sticks and stones. If you wish to run surface water in get a good extra heavy strainer, for nothing will spoil and fill your sink quicker than grass and weeds.

SHOULD BE NO MONOPOLY IN HAIL INSURANCE.

EDITOR FARMER'S ADVOCATE:

Dear Sir:—You are no doubt aware that the Hail Insurance Ordinance, enacted by the Territorial Legislature in 1901, and which provided certain compensation for those who chose to insure against loss of growing grain crops from hailstorms under a system administered by the Government, is and will be effective in the new Provinces until something is done by the new Legislatures with regard to it. This Ordinance leaves the individual farmer quite free to insure or not at his own option, but no agents are employed to solicit patronage, and it prohibits any Company doing Hail Insurance business in competition with the Government system, therefore, it is a case of voluntary application for insurance with the Government and payment of a cash premium, or no insurance at all, and as a result there has been a great deal of hardship from loss or damage to crops that were not insured. The numerous enquiries that are continually reaching our head office and the information we have obtained from different sources warrant the conclusion that the farmers generally are in favor of a repeal of the Ordinance in question, or at least such amendments to it as will permit them to insure in a reliable Company if they wish. Summarized, the expressions of opinion we have received from all parts of Saskatchewan and Alberta go to show that the Ordinance is regarded with general disfavor for the following reasons:

That the protection afforded is inadequate in that the amount of indemnity allowed in the event of loss is less than the average cost of an acre of growing grain crop, and the privilege of effecting further insurance with Companies transacting Hail Insurance business is denied by the monopolistic character of the Ordinance.

That the cost per acre of growing crop varies in proportion to the value of land and seed, the rates of wages for farm help, and other expenses incidental to farming.

That some of the grain-growing districts appear to be more subject than others to destructive hailstorms.

That every opportunity should be afforded for insuring against such loss without interfering with the right of the individual to carry his own risk.

That the moral hazard being entirely eliminated from the risk undertaken in insuring against such loss, the individual farmer should be permitted to insure his crops to such an amount as he may deem advisable or the conditions warrant.

That the insuring of growing grain crops against loss from hailstorms has been for some time and is now being conducted in the Province of Manitoba by Joint Stock Companies, whose policies of insurance are definite contracts guaranteeing payment of loss sustained by the assured, and the manner in which the business of the said companies has been conducted has given general satisfaction to their patrons.