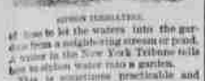
IRRIGATING GARDENS.

Spinning Water to the Plants—Subterranean Work Over Tiling.

With garden and fruit crops which repaid for money returns irrigation pays, as often the first crop saved in time of extreme drought pays the first cost of the irrigation plant. In many cases it only requires the opening of a few furrows, or the laying of a few pipes, or the use of a few dollars' worth



SIPHON IRRIGATION.

of hose to let the waters into the garden from a neighboring stream or pond. A water in the New York Tribune tells how to siphon water into a garden.

This is sometimes practicable and cheaper than digging ditches. The idea will be made plain by a glance at the illustration. Here nature does its own pumping over the high bank. Get the pipe once filled and running a steady stream, at its lower end, and as long as the outside end is lower than the end inserted into the water supply, or, rather, that the water level, the water will be sucked up from the supply and be steadily discharged from the lower end into the garden.

A Kansas correspondent who is more than satisfied with his subirrigation plant writes about it as follows in The Irrigation Age:

Last spring I put in 800 feet of tiling, and I found that I could raise anything I planted. Some say it is too expensive. My garden is in town, and if I had to build a reservoir on it the land that I would have to use for that pur-

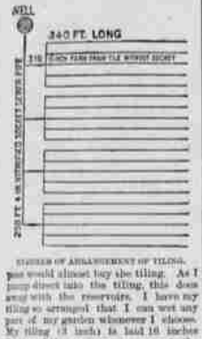


DIAGRAM OF ARRANGEMENT OF TILING.

pose would almost buy the tiling. As I pump direct into the tiling, this does away with the reservoir. I have my tiling so arranged that I can wet any part of my garden whenever I choose. My tiling 18 inch is laid 16 inches deep, and the moisture comes up to the top when thoroughly soaked. I have a well 41 feet deep. I use a 5 inch pump and a 12 foot mill. I can lift 800 barrels per day, and there is no evaporation, as it pumps direct into the tiling.

Latest In Harvesting Machinery.

The low hung haycock, which can be used with ordinary wagon wheels, and which swings only 18 inches from the ground, saves much labor in loading; and as the hind axle may be longer than the fore it is said to draw more easily afield and to enable a team to carry a larger load. Unloading is robbed of its terrors by the horse fork and carrier, the Rodnefer sling taking off the load in three bites and having an attachment that adapts it to any hay carrier without a change of pulley.

Hayrakes are nearly perfect. The distinctive features of the new Emperor rake take away a hand lever which causes cramped position when the foot dump is used; a calm action for relessing dog, which lets the teeth fall with little jar, and a double trussed frame which prevents sagging.

The manufacturers of small grain harvesters have added numerous improvements since last season which have simplified the machines and made them still more effective. Ball and roller bearings greatly lessen the draft. The use of the best steel frames makes a lighter and stronger outfit. One of the very newest machines is a combined header and binder, cutting a 12 foot swath. One man and four horses can operate it, and if conditions are favorable cut 35 to 40 acres of grain a day. If the grain for any reason is very short, the machine may be used as a header. It will harvest wheat, oats, rye, barley, flax, rice, timothy, clover, alfalfa, etc. The Carver machine has a strong competitor in the Continental Giant, which so combines the Continental sod header and the Giant harvester in one machine that it may be used for either purpose. It also cuts a 12 foot swath and is operated by four horses or oxen. The Wyckoff harvester is notable for a unique plan of elevating grain to a low platform at the driver's side, where it is bound and dropped to the rather that discharges the bundles. This requires but little power, and as the machine is low allows it to reach grain that