

**Improved Sulky Plow.**

This improvement in plows relates to a new method of operating them, whereby they are handled much easier, run lighter, and last longer than common plows.

The improvement is applicable to single or gang plows. In detail, it consists of a beam, A, which is prolonged after it passes the axle, and is attached to the iron, B. This iron connects with the lever, C, so that by pushing it forward, the back end of the plow will be raised clear of the ground. On lowering the lever, the point of the share strikes first, which causes it to set in, no matter how hard the ground. The lever works on a quadrant, D, which is fitted with a catch to hold it at the desired point; an eyebolt in the forward timber, A, furnishes the means to draw the plow. The depth of the plow is regulated by the lever, E, and by reaching down, the driver can set the shares at any point from one to ten inches deep, without stopping. Farmers who have plows that they are pleased with, can attach them to this rigging, when they will work much better, than they did before. It is claimed that any boy who can drive is able to manage the machine, and that it is in all respects desirable. For further information, address the inventor, Ira C. Pratt, Morton, Ill., by whom it was patented, through the Scientific Patent Agency, on Sept. 5, 1865.



**PRATT'S SULKY PLOW.**

**JELLIFFE'S BLACKING BOX HOLDER.**

"One cannot touch pitch and not be defiled," says the proverb; "or blacking either," the prophet might have added. "All those miserable people who polish their own boots frequently find more blacking on their hands than is pleasant or profitable, and this arises from the exceedingly unpleasant action of the box. If you lay it down and rub the brush in, it turns round like a dancing Dervish. If you slap the brush in, the box turns a summersault in the air, and in any case you don't get the blacking out of it."

By the aid of this little device the box can be held very conveniently, without soiling the fingers, and



the paste can be got at without the least difficulty. The arrangement is simply a wooden handle, A, slipped through a band, B, formed by cutting two slits in the bottom of the box itself. The tin between these is pushed down, and the handle shoved in, completely filling the space, and making it all tight. A small hole in the end of the handle is convenient to hang the box up by. This device can be applied at a small cost—"one quarter of one cent," says the inventor—and will doubtless prove popular. For further information address Charles E. L. Jelliffe, Brooklyn, (E. D.,) N. Y., by whom it was patented, through the Scientific American Patent Agency, on Aug. 1, 1865.

**The Lake Tunnel--The Wonderful Artesian Wells of Chicago.**

The great Lake Tunnel exhibits a favorable state of progression. It has now reached a distance of 4,850 feet from the shore end, and is advancing at the rate of about twelve feet per day on the outer or lake end. The great crib is securely anchored, and three of the six iron cylinders have been successfully

sank. It will not be many days before the necessary depth is reached, when workmen will commence excavating toward the shore. While admitting the greatness of the design, and the courage necessary to undertake the execution of so stupendous a project, it is yet quite questionable whether it will ever accomplish the desired object, viz.: A supply of pure wholesome water. Water is now obtained very near the shore, but when the tunnel is completed the inlet will be two miles distant; the complaint now is that the impure waters of the Chicago River—at best a common sewer, and the receptacle of all the filth

from the distilleries, factories and packing-houses—finds its way to the pumps, and from thence to the reservoirs. The tunnel, it is said, will obviate this difficulty, but only in a limited degree, for this filthy water will be carried even to the tunnel inlet with every breeze of wind from the west, southwest and south. The opening of the Illinois and Michigan Canal—the work on which is to be commenced this winter, the canal to be cut down to the level of Lake Michigan—will turn the waters of the Chicago River the other way, and, with the current, discharge the filth through the Illinois River. This work will more effectually purify the lake water than all the tunnels which can be built; and this object once accomplished, an inlet to the city water works would be just as good a half mile out in the lake as one two miles distant.

The Artesian wells, now discharging one and a quarter millions of gallons per day of the purest water ever seen on the face of the globe, continue to excite a deal of wonder and curiosity. These wells are located near the city limits—about three miles from the City Hall—are seven hundred feet deep, and discharge an immense volume of clear, cold water.

In several respects these wells are anomalies: first, that the water which rises to the surface stands at 57 degrees Fahrenheit, which is below the mean temperature of the locality, while in all other deep wells the temperature increases in proportion to the descent; so that no water is found at a greater depth at much less than 75 degrees, and in the great wells at Charleston and in the basin at Paris the range is up to 85 and 90 degrees, and then this water is free from the unpleasant and disagreeable mineral taints so common to Artesian wells. It is certified, under chemical analysis, to be the best article of drinking water in the world, and from the force and power with which it comes to the surface—it has a head of one hundred and twenty-five feet above the level of Lake Michigan—there seems to be no doubt but that by an enlargement of one of the wells to the diameter of twenty inches, a sufficient supply—estimated at seventeen millions of gallons per day—could be obtained to meet the demands of

the city for years to come, and this would flow into the reservoirs without the aid of expensive engines, steam-pumps and fuel.

Another curious feature in regard to those wells—and one which geologists have not yet explained—is found in the fact that they are located in no great valley or depression, like the basins of Paris and London, but are out on the level prairie, surrounded for hundreds of miles by country of a like character. This fact, taken in connection with the low temperature of the water and the great head of the fountains, seems to indicate that it has a source far in the north or northwest, beyond Lake Superior, and beyond the Mississippi, perhaps away off in the Rocky Mountains, who knows?

We are suffering now from the fish nuisance. Your readers may not know what the fish nuisance is. I will enlighten them. Regularly at about this season of the year small fish, thousands of bushels, gather in the lake about the water inlet, and so clog up the screens that it becomes impossible to pump any water without raising the latter, when in they pour by millions, some living, and find their way into every pipe and out of every faucet. You cannot draw a pitcher of water without your quota of these piscatorial

adventurers.—*New York Daily Times.*

THE Committee of the Paris Universal Exhibition of 1867 has just decided that there shall be no lists of admission gratis. The charge will be one franc, except on Friday, when it will be five. Persons who may wish to enter before ten in the morning will pay one franc extra. The price of season tickets will be 100 francs for men, 60 francs for women, and 20 francs for children.



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