

Common-sense Political Economy.

We find the following in an exchange. The writer displays rare common sense:—It is very common for agricultural writers to lament the decline of domestic manufacturing, and to advise farmers to raise as great a variety of crops as possible, on the assumption that the nearer a family can come to the production, by their own skill and industry, of all they need, the more prosperous and independent it will be. In reply to an article written for the purpose of recommending a return to the good old customs of our fathers in this respect, we find the following off-hand comments in the *Prairie Farmer*:—As "revolutions never go backward," we like the "bright side" view of the writer.

"Now, when I was a boy, fifty years ago, I went through this mill, and know exactly how it grinds, and from such a farmer's life may the good Lord deliver us. My father had a large family, and I do not think his store bill amounted to twenty-five dollars a year.

"We made our own sugar from the maple grove, we grew our own wool and flax, and it was manufactured in the house. The shoemaker and tailor came twice a year and made our shoes and clothes; the girls did the spinning and weaving, made the straw hats, bonnets, etc. By the most diligent industry of every member of the family, young and old, and the most frugal economy, we made a plain, substantial living, and were coarsely but warmly clad. But by doing so many things, we must necessarily do everything on a small scale, and in consequence had very little to sell, and the end of the year found us with very little if any profit. The wealth of men as well communities depends upon the amount they produce more than they consume, and to do this we must have a division of labor. I want to furnish some man that has machinery driven by water or steam with the raw material, and let him do the manufacturing while I feed him. If farmers turn mechanics manufacturers must of necessity turn farmers. I should be sorry to see the day when farmers were obliged again to use the hand-loom in their domestic economy.

"I can grow a bushel of wheat or a pound of wool much easier than I could make a jack-knife or cambric needle. They are both articles I need, and the man that makes them needs my wheat and wool, and as long as needles and knives are made I have no fear about getting them, provided always that I have the wheat and wool.

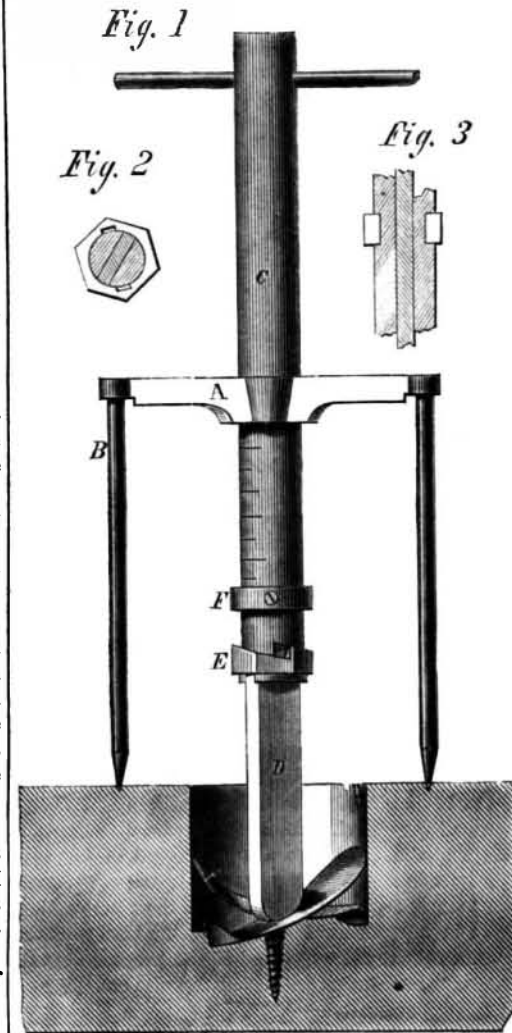
"If the broad prairies of Iowa and Illinois were not calculated for grazing and woolgrowing on a large scale, I cannot understand what they were intended for. If every farmer pursued the course suggested you would have no such city as Chicago, and very little use for your magnificent network of railroads."

GILLETTE'S IMPROVED AUGER.

Boring holes with ordinary augers or bits is not a very satisfactory performance, for after going a certain depth the chips jam in the twists, causing a great deal of labor to overcome the resistance caused thereby, and frequently heating the cutting edges so that the temper is drawn; besides this, time is wasted in raising the tool so as to clear the hole out and complete the work. For want of a guide, also, the operator has no way of determining whether the tool is going straight or not, and holes are often bored untrue from this cause.

The object of the improvements illustrated in this connection, is to provide means for boring holes perfectly true and to relieve the unnecessary friction caused by carrying the chips around. To attain these objects, the inventor provides a guide, consisting of a bar, A, supported by legs, B; this bar carries the shaft, C, in the end of which the bit, D, is fitted. This bit is merely a straight flat bar, notched on one end where it fits in the shank, and armed on the cutting end with blades, which act as the common auger does. On the auger shaft there is a sleeve, E, which has stops, so that it cannot be turned too far. When in the right position, that is, so that the slots in it coincide with one in the auger shaft, Fig. 2, the tool can be inserted, and by turning the sleeve, E, held firmly in place; the top of said bit being held by another sleeve, F. Figure 3 shows the adjustment of

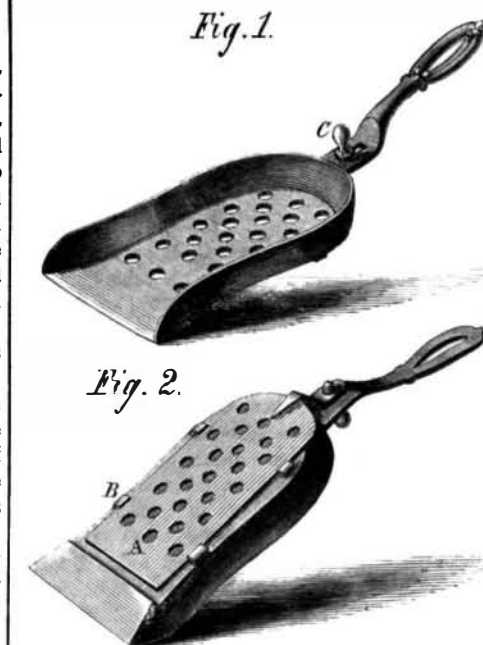
the sleeve on the shaft so that it cannot slip. By making a graduated scale on the auger shaft, a hole can be bored to any depth without removing the auger until the work is done to try the distance. This tool will cut remarkably free, easy and true, and is desirable in framing houses, ship-building, or any



place where similar tools are used. It was patented on March 14, 1865, through the Scientific American Patent Agency, by E. C. Gillette, a resident of San Francisco, Cal. For further information address Henry Lyon, 119 Nassau street, New York.

SCHAAP'S FIRE SHOVEL AND SIFTER.

This utensil is designed to be employed as a shovel or scoop, and, on occasion, to sift ashes to extract the



cinders therefrom, so that they may be again used for fuel. Scoops with perforated bottoms are not new, but the manner of constructing the one here shown is novel and ingenious. With common perforated

scoops, the contents are apt to fall through in the act of carrying them from the stove to the ash box; live coals also drop out, and damage the rug or carpet if they fall upon it. This scoop is made with a sliding bottom, A, which is retained in place by clasps, B; in the handle of the scoop is a slot through which a knob, C, projects, said knob being fastened to the plate below. When this knob is pushed down, as in Fig. 1, the holes in the scoop and plate coincide, so that it may be used as a sifter; but when the plate is reversed the holes are closed and the bottom is solid, allowing nothing to fall through. This invention was patented March 21, 1865, through the Scientific American Patent Agency. The patent is for sale; orders for shovels supplied. For further information address the patentee, Richard Schaap, Jr., 128 Myrtle avenue, Brooklyn, N. Y.

MISCELLANEOUS SUMMARY.

THE HARDENING OF HYDRAULIC CEMENT.—Dr. Feichtinger, in a paper "On Winkler's Theory of the Hardening of Portland Cement," states his opinion that the hardening results from the formation of chemical compound of lime and silica, or lime and a silicate. In all hydraulic limes, he states, free lime is contained. He has already shown that, when Portland cement is made up with a strong solution of carbonate of ammonia, no hardening takes place, even when the excess of ammonia is washed out, in consequence of the lime becoming converted into carbonate; but if some hydrate of lime is added, the cement hardens, as well as fresh cement.

BELL MUSIC FOR PARIS.—The tower of the church of St. Germain L'Auxerrois is about to receive a very perfect chime, consisting of no less than forty bells, which will play twice every day; and the machinery setting them in motion is so arranged that any number of tunes may be played upon them. The well-known mechanic, Collin, has constructed a gas engine, in which the air is condensed to twenty-one atmospheres, and thus sets in motion a number of small cylinders, which act upon the bells, on the musical-box principle. M. Collin is engaged upon a series of experiments in which elasticity forms the motive power.—*Builder.*

OIL TANK WITH A WATER BOTTOM.—A Cincinnati, now in the Venango oil regions, is stated to have become short of barrels to secure the fluid. His ingenuity was set to work, and he immediately put a bottomless tank into the water and directed the stream from his flowing well into it. The lighter quality of the oil kept it above the water, and when the receptacle became filled the enterprising miner cut loose his moorings and floated down the river to the refinery.

THE funeral procession of Abraham Lincoln in the length of its passage, in the number of mourners, in solemnity, depth and extent of grief, surpassed all that had preceded it. The one that came nearest to it in previous history was that of Alexander the Great, whose body was borne on a golden chariot from Babylon in Asia to Alexandria in Egypt.

REDUCTION IN COAL.—The coal trade is unusually depressed, and owners find it impossible to effect sales at present high prices. A large reduction has therefore taken place in wholesale prices, which will or ought to cause a reduction of two dollars a ton to consumers, with a prospect of a further decline soon.

THE Wheeler & Wilson Sewing Machine Co., located at Bridgeport, Conn., turn out a machine every three minutes, or twenty in a working hour! There are nine hundred men employed, and an invested capital of \$1,000,000.

ONE hundred barrels of crude oil will yield from seventy to eighty barrels of refined, according to the skill of the refiner, and the perfection of machinery employed for such work.

THE present rate of wages in the Pennsylvania oil regions is moderate. Drillers and engineers get from \$2 to \$2 50 per day, and board; mechanics get from \$3 to \$5.

THE manufacture of American flags has been commenced in Lowell. Hitherto such flags have been made of foreign bunting.

THE Herald of the 6th inst. says, the Government has reduced its coal orders from 10,000 tons per day to 9,000 tons per week.