

horse to water, but twenty cannot make him drink—and yet if he does not drink, he dies. So a boy or girl may be supplied with all the materials of education, and yet remain uneducated to the end of time. Moses struck the rock, and the waters gushed forth. When it is proposed to apply a force to inorganic matter, the force, not being within itself, must be applied externally, or it must change its internal constitution like chemical action. But when we pass to the living soul, we find the organizing, energizing force within, and all our skill must be directed to the development of this, of a true moral and spiritual life.—*A. Potter, D. D.*

WORTH TRYING.

The *Boston Medical Journal* mentions the following simple and economical apparatus for overcoming bad odours, and purifying any apartment where the air is loaded with noxious materials. Take one of any of the various kinds of glass lamps—for burning camphene, for example—and fill it with chloric ether, and light the wick. In a few minutes the object will be accomplished. In dissecting rooms, in the damp, deep vaults where drains allow the escape of offensive gases, in out-buildings, and in short in any spot where it is desirable to purify the atmosphere, burn one of these lamps. One tube charged with a wick is sufficient.

TRY THIS ALSO.—TO SWEETEN RANCID BUTTER.

An agriculturist, near Brussels, in Europe, having succeeded in removing the bad smell and disagreeable taste of some butter by beating or mixing it with chloride of lime, he was encouraged by this happy result to continue his experiments by trying them upon butter so rancid as to be past use; and he has restored to butter, the odour and taste of which was insupportable to all, the sweetness of fresh butter. This operation is extremely simple and practicable for all. It consists in beating the butter in a sufficient quantity of water, into which had been mixed 25 or 30 drops of chloride of lime to two pounds of butter. After having brought all its parts in contact with the water, it may be left for an hour or two; afterwards withdrawn and washed anew in fresh water. The chloride of lime used, having nothing injurious in it, can safely be increased; but after having verified the experiment, it was found that 25 or 30 drops to two and a half pounds of butter, were sufficient.

THE LARGEST MILL IN THE WORLD.

The largest cotton mill in the world is the Pacific, at Lawrence, Mass. The main mill is 800 feet long, 75 wide, and is practically, including basements and attics, seven working stories in height; the whole being built of brick, not only substantially but elegantly. The print works adjoining are 1,500 feet long and twenty feet wide, being extended to form three sides of a hollow square, surrounding the main mill and boiler-house. The boiler-house is 590 feet long. The whole floor-surface of this immense structure is sixteen acres. The largest mill in England is the Saltaire Works, lately constructed by Titus Salt, the main building of which is 590 feet long and fifty feet wide, and the whole floor surface of which is twelve acres. There are now in operation at the Pacific Mill, in Lawrence, fifty thousand cotton spindles; and these are to be increased to eighty thousand. There are 1,200 looms in opera-

tion, to be increased to 2,400. These with two thousand persons produce 300,000 pieces of cloth per annum—one half delaines. The weekly consumption of cotton is twenty thousand pounds, or 1,500,000 pounds per annum, and 500,000 pounds of wool. Once a month two thousand persons assemble at the cashier's office, where he pays out to them \$50,000 for wages, appropriating to each the exact amount she has earned.

ALUM IN CANDI^E-MAKING.

The proportion used is about one pound of alum to eighteen of tallow. If the tallow is very hard, a less quantity is used; if soft tallow, the quantity of alum may be greater. The mode of operation is, to put the alum in water which is raised to boiling heat, by doing which the alum is thoroughly dissolved. In dipping the candles, this water, in a boiling state, is added to the tallow as the quantity is diminished by the growth of the candle. This fairly mixes the alum with the tallow, while the water settles in the vessel under the tallow. We have seen very fine candles made from old lard, with a portion of tallow, by this operation.

We have spoken, as is seen, of the manufacture of dipped candles. The water could not be well used in making mould candles; but the proportion of alum and tallow would, probably, be about the same as in the former case, and the mixture can be effected, for aught we can see, by putting the alum into the tallow when cold, and dissolving them together.—*Country Gentlemen.*

The *Border Advertiser*, (Scotland,) states the startling fact, for the consideration of rate-payers, that "in the two neighboring parishes, viz., Mertoun on the one hand, and Legerwood on the other, not a penny of poor-rates is required; and why? The reason is quite obvious—not a whiskey shop is in either parish; whilst Earlston, with eight such houses, has, in round numbers, £450 to pay annually, in supporting a class, three-fourths of whom have directly or indirectly been paupered through the liquor traffic."

A "FONT" OF TYPE.—As a scrap of information with which few of our readers are acquainted, we give the proportions in which the different letters are cast for a "font" of type, and in which they occur in print:—Letter *e*, 1,200; *l*, 900; *a*, 850; *n*, *o*, *s*, *i*, 800; *h*, 640; *r*, 620; *d*, 440; *l*, 400; *u*, 340; *c*, *m*, 300; *f*, 250; *w*, *y*, 200; *g*, *p*, 170; *b*, 160; *v*, 120; *k*, 80; *q*, 50; *j*, *x*, 40; *z*, 20. Besides these are combined letters, *h*, 50; *f*, 40; *fl*, 20; *fl*, 15; *fl*, 10; *æ*, 10; *æ*, 6. This refers to the small letters only, leaving out points, capitals, small capitals, figures, italics, spaces and accents. The proportion for capitals and small capitals differs from the small letters. In those, I, takes the first place, then T, then A, and E, &c.

PEPPERMINT.

Some may think this a very insignificant article to cultivate, and yet there are smaller things attended to in the line of agriculture, which yield great returns. The oil and essence of peppermint are important articles of commerce, and the growth and distillation of the plant may be made very profitable.

J. Bradley, of Lyons, N. Y., communicates to the *Rural New Yorker*, the results of his cultivation of a few acres of peppermint ground in 1854. He planted the roots in October in drills marked out two feet apart; and covered the same by a small horse plough.