

obtained for blowing the "carriers" from the central station to the branch offices, so that the pipes can be made available for carrying in both directions. The branch office in Mosley street is about 320 yards from the central office, and the distance of the Ducie Buildings from the branch office is 510 yards. The time occupied by a "carrier" in traversing the shorter distance is 22 seconds.—*Engineer.*

Grease for Leather.

In smearing leather with oil we aim not only at making the leather pliant, but also at making it water-proof. Train-oil is often used for this purpose, but no fat gives more imperfect results; for no liquid fat is suited to render leather permanently water-proof, train-oil possesses this characteristic, that after a while it dries up, and then the leather becomes brittle. Hog's lard is admirably adapted to secure both objects, pliability and impermeability to water. It renders the leather perfectly pliant, and no water can penetrate it. It is especially suitable for greasing boots and shoes; but in the summer season an eighth part of tallow should be melted with it. It should be laid on when in a melted condition; but no warmer than one's finger dipped in the mass can bear. When it is first applied to a boot or shoe, the leather should be previously soaked in water, that it may swell up, so that the pores can open well and thoroughly absorb the lard. The liquid lard should be smeared over the article to be water-proofed at least three or four times, and the sole leather oftener still. Afterward the lard remaining visible on the outside should be wiped off with a rag. By this means you may have a water-proof boot or shoe, without the annoyance caused by most stuffs of penetrating the leather and greasing the stockings. An occasional coating of hog's lard is to be recommended for patent-leather boots or shoes, as it prevents the leather from cracking, and if it be not rubbed in too strongly the leather will shine just as well after the application.—*Shoe and Leather Reporter.*

A Scottish Opinion of American Ingenuity.

No people are so full of ingenious little expedients for saving labor and material as are the Americans. The force of circumstances has made the Yankee a master in the art of extemporizing little "dodges" in mechanism. Self-help is the great lesson a man receives when he sets foot in a new country, and it is in the invention of helps in metal and wood—helps which need no wages, and which never strike, or tire, or grow sick, that the New Englander excels. There is nothing out of a pantomime more ludicrously clever than some of the inventions which have of late years been introduced into this country from the West. The process of making common nails by machinery is so rapid as to baffle the eye, and so comically instantaneous that the stranger who witnesses it for the first time laughs over it as a most excellent joke. There is a "whiz" of revolving wheels, a sputter of light shavings, a procession of little staves chasing one another in the air, then another whiz of the collected staves, and the bucket is hooped and made. Scarcely less amusing is the little mechanical device for paring apples by mach-

inery. The machine is the veriest toy—simple and cheap—but it brings off the rind with an almost magical delicacy, and while it pares the fruit with an accuracy which seems to bespeak a special sense of touch, it slices the apple and takes out the core at the same time. Success in such small matters has made the American bold, and has trained him into habits of innovation. So far from dreading novelty, he likes novelty for its own sake, and to secure it he often reverses our way of doing things. In his steamboats he builds up the cabins tier over tier upon deck instead of below, and he suffers the engine to work high in air above the many stories of cabins. When he wants to put another story to a great building he adds the new floor at bottom instead of at the top, and be it a bank, hotel, or huge store, he is ready at your command either to lift the entire block or to slide it on its travels to a more eligible location. In printing newspapers he builds his type upon cylinders instead of laying it upon the slow working table, and he makes the machine "pick up" and "take off" its own printed copies with a regularity and a neatness which no number of trained hands can equal. His gunboats are floating martello-towers that can fire fore and aft as readily as from the side. His river steamers are amphibious, and may go anywhere where it is a little damp. He is partial to machinery because it does not grumble, is not impudent, is not extortionate; and hence it comes that his crops are gathered with patent reapers, his linen is washed with wooden hands, his cows are milked by the patent cow-milker, his potatoes as well as his apples are pared by one of the queerest little kitchen-maids, who has no "followers" and who wastes none of the fruit; and even his chairs, his tables, and his cabinet-work in general come from manufactories large as our cotton-mills, where they are turned out in parts by swift-moving machinery.—*Dundee Advertiser.*

Acorn Coffee.

"Opening an old book the other day, I found a receipt for making 'acorn coffee;' so I gathered some acorns and had them prepared, and I must say that it was the best imitation of coffee I ever drank. In fact as palatable as 'prime old Java.' As there is a large crop of acorns this year, the following receipt for making the coffee may interest some of our readers. Take off the hull and dry the kernel; roast and pulverize it; when making a decoction, use as much as you would if you were measuring the genuine 'Mocha' from Arabia."—*Exchange.*

The best way of raising money is by the lever of industry. The griping miser raises his by saw-power.

The natural productiveness of one land tends to alleviate the wants of another less highly favored, thereby establishing a system of exchange and communication known to us in this busy world by the short but comprehensive word, *commerce.*

There is no more beautiful object than a soap bubble. No flower or precious stone excels it in symmetry. None equals it in color.