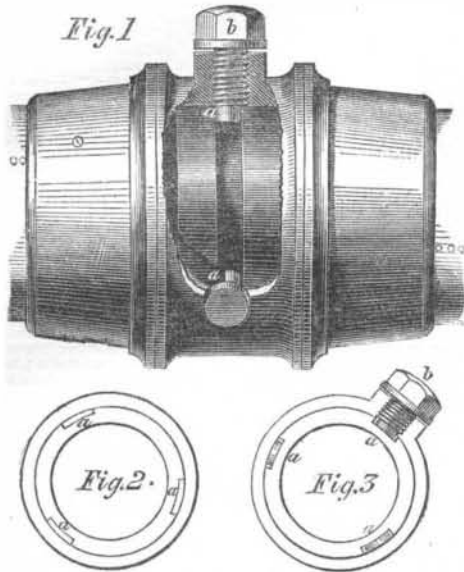


SMITH'S HOSE COUPLING.

A few months ago, it was reported that an inventor in Newport, R. I., had been offered \$20,000 for an improved plan for a hose coupling, and this report seems to be stimulating other persons in the same place to make inventions in the same line. The annexed cut represents a device for coupling hose, which seems to be about as simple as anything can be, and to form a smooth and secure joint.

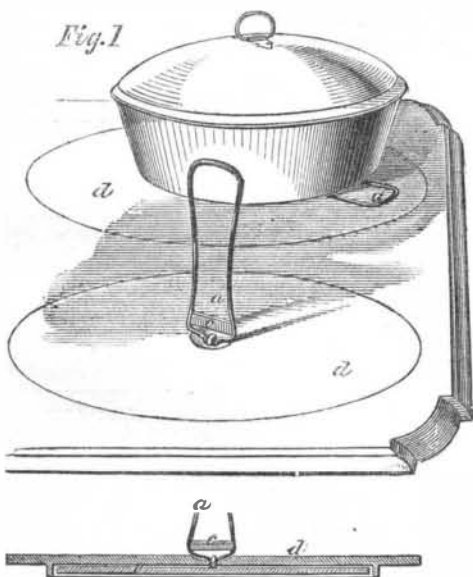


In the female screw are made three spiral grooves, *a a a*, with three corresponding stops or studs in the male screw, one of which stops, *b*, consists of a screw passing through the coupling, and furnished with an octagonal head on the outside. The use of this screw is to prevent the coupling from turning and becoming disjointed, and its thread is cut in the proper direction to turn the coupling, so as to tighten it when the screw is turned inward, and to loosen the coupling when the screw is turned outward. An elastic packing is interposed between the end of the male screw and the female screw where they meet, and it requires only about one quarter of a turn to bring these parts together.

The patent for this invention was issued Aug. 30, 1859, and persons desiring further information in relation to it may address the inventor, Wm. H. Smith, at Newport, R. I.

IMPROVED HANDLE FOR STOVE COVERS.

The stove is an article of such universal use that any real improvement in it is of very great value. The annexed cut represents a contrivance for the cover handles, which permits them to bend down freely under any vessel placed upon the stove, and restores them instantly to an upright position when the vessel is removed.



The handle, *a*, is made about four inches long, of No 12 wire, bent in the form represented, with a brace, *c*, across the lower part. Beneath the cover, *d*, is the circular plate, *e*, which acts as a weight to draw the handle into an upright position; the plate being connected with the handle by means of a staple, and the shoulder of

the handle being so fashioned, in relation to the hole in the cover, that the latter may act as a fulcrum over which the handle turns as it is operated upon by the weight. As the handle turns freely in the circular hole it is bent down with perfect facility in any direction; and when it returns to its place on the removal of the vessel, it is always ready to be grasped by the hand for removing the cover.

The inventor states that this convenient device has been in use for two-and-a-half years without any perceptible wear, and that the handle never becomes too warm for the hand with an ordinary fire in the stove.

The patent for this invention was granted (through the Scientific American Patent Agency), on Sept. 13, 1859, to J. H. Gould, who has assigned it to himself and E. N. Hartshorn; and persons desiring further information in relation to the matter, will please address Gould & Hartshorn, at Alliance, Ohio.

IMPROVED NOZZLE FOR HOSE PIPE.

When fires occur in low buildings it is desirable to play upon them with a large stream of water, but in the case of high buildings a smaller stream must be employed, as it can be thrown higher with the same power than a large one. When there is occasion to change the size of the stream during the progress of the fire, it has heretofore been necessary to unscrew one pipe, and replace it by another of a different size, consuming time just when every minute is of immeasurable value.

The contrivance which we here illustrate is intended to obviate the changing of the pipes, while the result obtained is the same. It consists in having three nozzles



of different sizes fastened to a revolving plate eccentric to the end of the pipe, so that by simply turning the plate, either of the nozzles may be brought over the end of the pipe. The revolving plate, *a*, is shown in the cut with the nozzles attached. This plate is circular, and of the same size as the disk, *c*, which is fastened to the end of the pipe. It has a shoulder turned in its edge, over which the ring cap, *d*, fits loosely, this ring being screwed upon the disk, *c*, to hold the parts together. The plate, *a*, and disk, *c*, are ground together with emery so as to fit water-tight together, and still to allow of an easy motion of the plate over the disk. The pin, *e*, which is pressed upward by a spiral spring, enters one of three holes fitted for it in the proper plate, *a*, to hold either of the nozzles in line with the pipe; this pin is drawn down when the plate is to be turned.

The patent for this invention was issued to A. W. Roberts, May 8, 1855, and has been assigned to John C. Dickinson, to whom inquiries for further information may be addressed at Owego, N. Y.

HUMAN ENDURANCE.—During the Arctic voyages in search of Sir John Franklin, it was ascertained what a seaman can do in the way of traveling, carrying, and dragging. The maximum weight proper per man was ascertained to be 220 lbs., and of that weight, 3 lbs. per diem was consumed by each man for food and fuel—namely, 1 lb of bread, and 1 lb of meat, while the other pound comprised his spirits, tea, cocoa, sugar, tobacco, and fuel for cooking. Upon this estimate it was found that, for a hundred days' journey, they could march ten miles per diem, and endure with impunity a temperature of 50° or 60° below the freezing point.

HINTS ON POOR FARMING.—1st, Invest all your capital in land, and run in debt for more.

2d, Hire money to stock your farm.

3d, Have no faith in your own business, and be always ready to sell out.

4th, Buy mean cows, spavined horses, poor oxen, and cheap tools.

5th, Feed bog hay and mouldy corn stover exclusively, in order to keep your stock tame. Fiery cattle are terrible hard on old, rickety wagons and plows.

6th, Use the oil of walnut freely whenever your oxen need strength. It is cheaper than hay or meal, keeps the hair lively and pounds out all the grubs.

7th, Select such calves for stock as the butcher shuns; beauties of runts, thin in the hams, and pot-bellied, but be sure and keep their blood thin with scanty herbage. Animals are safest to breed from, that haven't strength to herd.

8th, Be cautious in the manufacture of manures. It makes the fields look black and mournful about planting time; besides it is a great deal of work to haul it.

9th, Never waste time in setting out fruit and shade trees. Fruit and leaves rotting around a place make it unhealthy.

The road to poor farming, though largely traveled, is not well understood, and these landmarks are thrown up for the common benefit.—*Springfield Republican*.

THE "SCIENTIFIC AMERICAN."—This sterling paper commenced its fifteenth year, and the second volume of its new series, on the 1st of January. The variety and value of the articles and illustrations with which it is weekly freighted, its long detailed lists of patent claims, the ability with which it is conducted, the elegance of print and paper with which it is got up, and its surprising cheapness entitle it to universal acceptance. The Scientific American Patent Office, we notice, has been recently strengthened by the accession of the Hon. Charles Mason, late Commissioner of Patents, which was all that could be desired to make their arrangements for obtaining patents for inventors the completest in the world.

We are indebted to our cotemporary, *The Builder*, published in this city, for the above excellent notice. This journal is devoted to the interests of architects, builders, and contractors, and is published by M. B. Monck & Co., 89 Nassau-street, this city, at \$2 a year.

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