

**How a Wrecked Steamer was Rebuilt.**

The Boston and New Orleans Steamship Company recently purchased the wreck of the *Caledonia*, which went ashore on Cape Cod—having cargo in both ends, and empty coal-bunks in the center, she parted and filled with water in the middle compartments. The other compartments, however, were secure, and much of her cargo was removed after she broke. In this condition she was purchased in February, 1863, by three gentlemen. Many difficulties were experienced in the endeavor to get her afloat, and it was not until the following October, and after it had been discovered that she must be plated over the break in the bent state in which she lay, that, during a severe storm that set the sand bank surrounding her in motion, she moved out toward deep water. A year of delay followed, awaiting the construction of Simpson's Dock, the only one large enough to receive her. There she was straightened and about fifty feet cut from the center, with the exception of the iron keel, which had only been bent. The space was then built up and plated in harmony with the original lines. After this she became the property of the company.

**A Hoop-skirt Manufactory.**

Arms, Bardwell & Co. have a large hoop-skirt manufactory in operation at Northampton, Mass., and the processes through which this article of ladies' wearing apparel passes are quite numerous. The tape is woven and prepared here (a novelty in this country), the raised threads or grooves for the steel being made by a very ingenious chain action. The bands or tapes are then fitted on wooden frames, in various sizes, and sewed. They are ribbed and glued with great dexterity, by hand; the clasping is also done by hand; at first with pincers and then firmly fixed by machine, which, in connection with the glueing process, gives a very strong skirt. Hoops of all sizes, as ordered, are made, ranging from 90 to 120 inches around the bottom. The very best steel is used for hoops, and they are so surely joined as not to break apart. The skirt hoops are so secured under the kid pads, as not to wear through, and stamped with the name of the party ordering. Messrs. Arms, Bardwell & Co. also manufacture pocketbooks and ladies' traveling bags.

**"Drulep" and His Umbrella.**

The *Gazette de France* devotes two of its columns to the new and startling discovery of an umbrella, the cover of which, instead of being of the texture of Robinson Crusoe's, or of alpaca, or silk, is of the last material any one would guess, namely, rain itself. It says any one who, like myself—the correspondent of the *Gazette*—was passing, between two and three o'clock on the road between Sourdes and Perouse, must have noticed a person who, although unknown in the country, attracted universal attention. The rain was pouring down in torrents. He held a cane about 10 in. above his head. The rain falling on this magic wand, spread out in the form of an umbrella, under which M. Drulep, the inventor, walked perfectly sheltered from even a single drop of water. M. Drulep will not as yet solve this mysterious problem; but the marvelous effect produced by this stick is reported to be due to a new application of electricity, and that M. Drulep's stick acts on the principle of the well-known *tournoiuet electrique*.

**RICE & EVERED'S TUBE SHEET CUTTER.**

This tool is intended to bore the holes for flues or tubes, in the tube plates of locomotive or tubular boilers. It is designed to do extra good work, and is especially valuable where the tubes are close together, since, in plates that have a hole punched or drilled in them to guide the end of the old tool commonly used, there is great danger of the drill running out, or the holes being badly punched by careless persons. With this tool the work must always be first-class. The hole will be true with the center, and, if the marker lays the sheet off properly, the tube plate will be a fac-simile of the draughtsman's projection in the drawing room.

In detail, this tool is simply a steel shank, A, with a sleeve, B. This sleeve slides, but does not turn on the spindle, being held by the feather, C. There is a thread on the sleeve which fits the hollow shank of the hand wheel, D; when the wheel is turned, therefore, the sleeve is drawn up or down.

The lowest end of the sleeve is formed into a socket, E, in which the cutters, F, are held, and there is a center, G, in the spindle, which works in the center punch mark in the work. The hand wheel rests on a collar, H, and is kept from rising by a nut, I, with a left-handed thread. There is a bracket, J, on the table which supports the sheet to be drilled. These are the details.

The inventors and manufacturers say:—

"The object of this tool is to save time in drilling tube sheets, by not having to drill the center hole, which is now either drilled or punched previously to cutting out the full-sized hole, thus saving one handling of the plates. There is also a saving of scrap iron, as thinner cutters can be used, and the center hole is not cut out, but all left in a solid piece. This

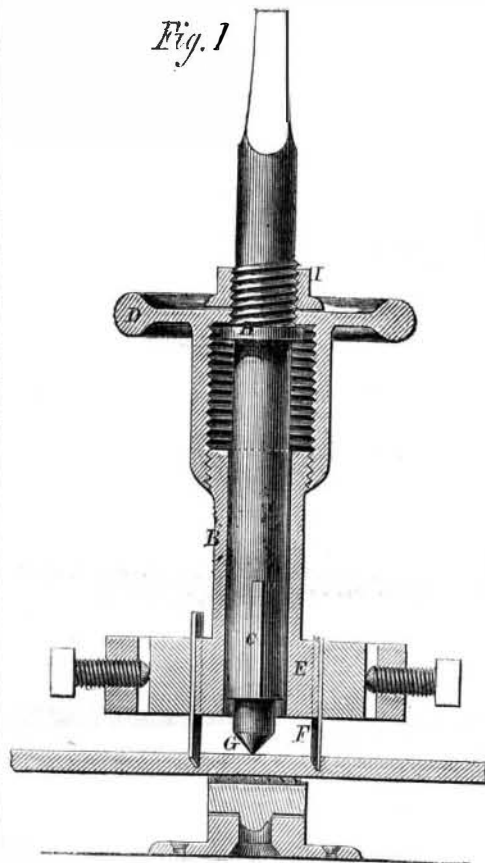


Fig. 2



is no small item where much of this work is done; the difference in scrap iron would soon pay for the tool. It also takes less power to cut than with thick cutters. Another important item is the saving of cutters; these cutters are not half so liable to be broken as those in common use. The reason that these cutters are not so liable to break is, that there is no slack motion to the cutters; they cannot go through or draw themselves into the sheet any faster than the natural feed. All the holes must be, with this tool, cut exactly true with the center punch mark; there is no chance for the drill to run; and where holes are drilled pretty close together, this is also a very important object—locomotive builders, especially, would find this a great help to them in doing good work. It is necessary to have a good solid drilling machine, in using this tool, in order to give the best results. We have used this tool for nearly a year, and are better satisfied with it every day, and have often cut at the rate of 600 holes two inches diameter in five-sixteenths iron, per day of ten hours. The patent for whole States is for sale. We can also manufacture the tools for sale, and have some on hand."

This invention was patented through the Scientific American Patent Agency on May 30, 1865, by D. E. Rice and William Evered, of Detroit, Mich.; for further information address them as above.

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