

Scientific American

A JOURNAL OF PRACTICAL INFORMATION IN ART, SCIENCE, MECHANICS, AGRICULTURE, CHEMISTRY, AND MANUFACTURES.

VOL. 1.—No. 24.

NEW YORK, DECEMBER 10, 1859.

NEW SERIES.

IMPROVED STAVE-JOINTER.

The accompanying cuts illustrate a very simple and efficient machine for jointing and dressing staves, for which a patent was issued through the Scientific American Patent Agency to Henry Benter, of Wheeling, Va., Feb. 22, 1859.

For jointing the edges of staves a pile, *a*, of staves is placed in the frame *B*, as shown, opposite the revolving cutter-head, *b*. The frame, *B*, slides in ways, *C C*, which are hinged in the middle, and are attached to the stationary frame of the machine by means of set screws passing through slots, so that the frame, *C C*, may be bent in the middle at any desired angle or placed straight, at the will of the operator. The object of this arrangement is to give the proper curve to the edges of the staves, by approaching them nearer to the cutter at each end than in the middle, as they are carried past it. Rollers with vertical axes are interposed between the edges of the ways and the sliding-frame, *B*, both to reduce the friction and to obviate the effect of the angle in the ways on the motion of the staves, rounding them with a constant curve. To give the proper bevel to the edge of the staves, they are caused to rest in the frame with a slight inclination from a horizontal position. As it is necessary to vary this inclination for barrels of different sizes, provision is made for adjusting the angle with precision, by a device which is represented in Fig. 2. The staves rest upon a plate, *c*, which is hinged at the back edge, and which is supported at its front edge by set screws which pass through the firm lip, *d*, of the frame; turning these set screws, the angle of the plate, *c*, and consequently of the staves, is varied at pleasure. The

staves are held in the frame by a permanent serrated jaw at one end and a movable jaw at the other, which is moved by a screw and crank, as shown in Fig. 2. The frame, *B*, is moved back and forth, either by hand or by any usual automatic arrangement. For dressing the sides of a stave, it is clamped in the frame with its side to the cutter-head, which is furnished with cutters with convex edges for dressing the insides of the staves, and with cutters with concave edges for dressing the outsides. By introducing a second cutter-head, this operation of dressing the sides of the staves may be carried on at the same time with the jointing of the edges; the staves to be fed to the cutter by vertical toothed rollers.

For any further information in regard to this invention, inquiries may be addressed to Benter, Burkle & Co., Wheeling, Va., who manufacture the machines for sale: suitable for dressing common sized staves, \$125; for heavy hogshend staves, \$150; for very light staves, \$75.

ANOTHER ARCTIC EXPEDITION IN PROSPECT.

The *Boston Journal* says:—"We are authentically informed that the expedition proposed to our countrymen by Dr. I. I. Hayes, the surgeon of the Kane expedition, is now actually being organized, and will probably start early next spring, under the command of Dr. H. himself. That gentleman has been frequently before the public in our principal cities to present, in lectures, the cogent reasons which exist in favor of another expedition up Kennedy Channel. Such is his confidence in the correctness of the views entertained by Dr. Kane respecting discoveries about the North Pole, that he pro-

necessary funds will be raised by private subscription, through the instrumentality of the scientific societies having the matter in charge. The amount required, as announced by Dr. Hayes in a recent lecture, is \$30,000, towards which several gentlemen interested in the promotion of science have liberally contributed. Among those whose names have been publicly mentioned, is the distinguished Superintendent of the United States Coast Survey, Professor A. Dallas Bache, who, besides his active services as chairman of the committee appointed by the American Association of Science, to aid this project, has, in a published letter, expressed his readiness to contribute from his private resources the pecuniary

means necessary to enable Dr. Hayes to extend the magnetic observations reported by Dr. Kane. It is known that the resolutions of the Geographical Society of New York, adopted some time ago, were supported not only by the Rev. Dr. Hawks, President, but by Mr. Henry Grinnell, one of the Vice-Presidents, whose reputation is world-wide in connection with Arctic explorations—especially those of Lieutenant DeHaven and Dr. Kane. The committee of that society consisted of Messrs. E. L. Viele, Henry Grinnell, August Belmont, H. E. Pierpont, Marshall Lefferts, and its number has since been enlarged with a view to the vigorous prosecution of its appeal to the public; and we cannot doubt the result, as far as New York is to be a participant in the raising of funds."

DEATH OF THE INVENTOR OF THE OMNIBUS RESTAURANT.—The Paris correspondent of the *Boston Traveler* says—"Among the deaths of the week I may mention the departure of the Viscount Marie de Bothere, the

decendant and representative of one of the oldest families of Brittany. His name owed its cotemporary celebrity to another cause. he founded the celebrated enterprise of the Restaurant Omnibuses' which some years ago formed the talk of Paris and furnished the playwrights of the day with a butt for their wit. He had 12 omnibuses laden with hot dishes rolling about Paris every day; 12 omnibuses laden with cold dishes; and 24 omnibuses laden with wines of every description. Three hundred masons built for him, in an incredibly short space of time, a splendid mansion and fifteen kitchens of immense size, where steam-engines of 16-horse power made the pots boil. The project miscarried, and he lost \$80,000. Having \$62,000 left of his paternal estate, he invested it in the wine trade, and lost all, except a pitiful sum which enabled him to live without asking alms. When death came upon him he was revising the proof-sheets of a book he had written, on Human Infirmities."

Fig. 1

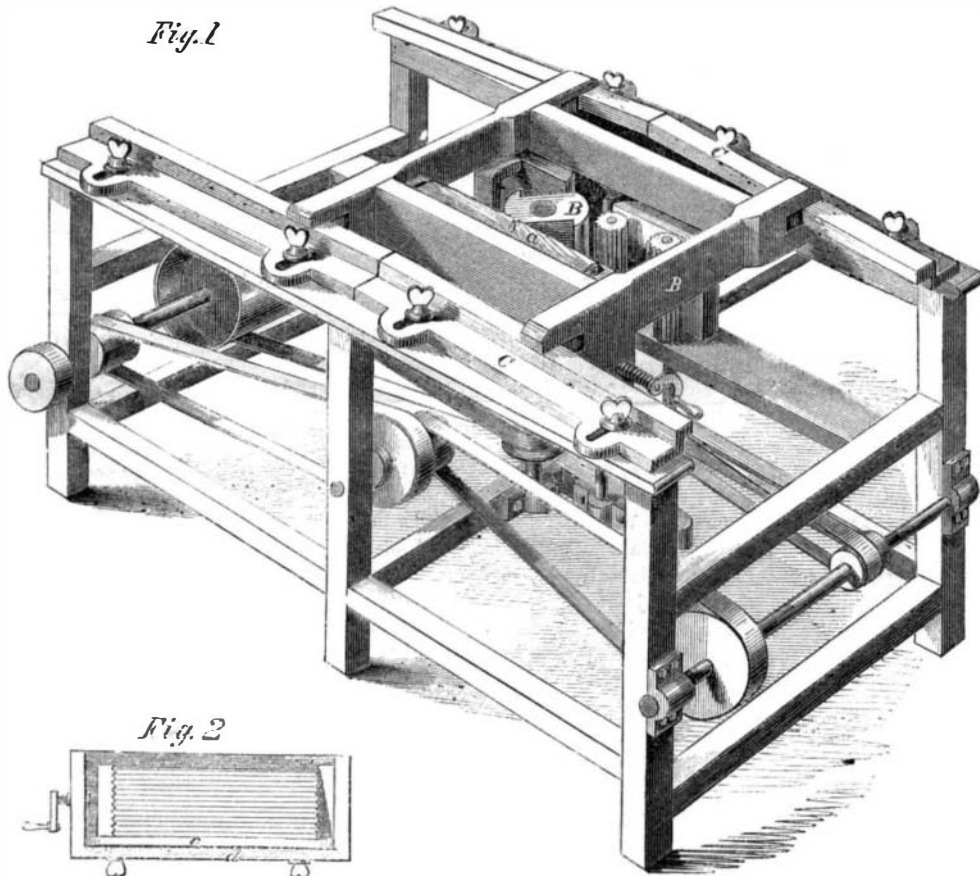


Fig. 2

BENTER'S IMPROVED STAVE-JOINTER.

poses to undertake, in his own person, the verification, which nothing but a series of extraordinary accidents that could not have been foreseen prevented his commander from completing. All of the leading scientific societies of the United States have already appointed committees to co-operate with Dr. H. in an enterprise so full of promise in many scientific relations. The expressions of interest in the work have not been confined to this country alone. The Vice-President of the French Geographical Society, M. de la Roquette, has been so far convinced of the importance of the expedition to the development of physical geography that he has become a subscriber to the fund to the amount of 500 francs. The President of the Royal Geographical Society of London, Sir Roderick Murchison, at a recent meeting of the eminent body over which he presides, announced the subject as one of leading importance to geographers.

It is proposed, however, to make the expedition strictly an American one; and it is understood that the