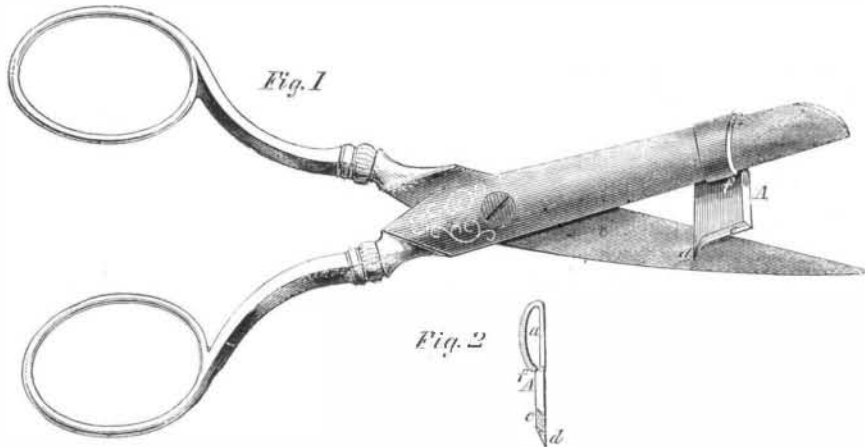


Trade of New York.

The general business of this city is dull; money and soldiers abundant. The exports for the month of April amounted to \$11,109,700; imports, \$14,886,400; revenue, \$1,643,300. The amount of exports last year in April were \$10,371,410; imports, \$16,971,400; revenue, \$2,444,300. The total value of exports for ten months amount to \$126,586,000. The amount of specie received here since January 1st to April 1st from California is \$13,130,148; amount received from abroad during the same time, \$17,035,703. The war, however, has given an immense impulse to some kinds of business. Two heavy clothing houses in this city have contracts with the government for uniforms amounting to upwards of \$250,000 each. All the woolen mills are full of orders for the gray cloth for



FEARING'S IMPROVED BUTTON-HOLE CUTTER.

soldiers' uniforms, and an unwonted impetus has been given to the manufacture of caps, shirts, blankets and firearms of all descriptions, while several large mills are weaving tent cloth. The Collins Company, of Collinsville, are making 7,500 sabres for the Sharp's rifle company. The receipts of the New York Central Railroad for the year ending May 1st are \$7,449,699, being an increase of \$948,784 over last year.

TO PLACE WATER IN A DRINKING GLASS UPSIDE DOWN.—Experiments of this kind are not only amusing but instructive; they illustrate what at first sight appears to be the "laws of Nature reversed," while, in truth, when we are familiar with them, they teach the "immutability of Nature's laws." The more experiments a boy makes, the greater number of rounds will he ascend up the "Ladder of Learning;" and when he is at the top, how bright is the prospect before him. All is beautiful, wonderful and lovely. Then can he come down, and

Find tongues in trees, books in the running brooks,
Sermons in stones, and good in everything.

But to our paradox. Procure a plate, a tumbler and a small piece of tissue or silver paper. Set the plate on a table, and pour water in it up to the first rim. Now very slightly crumple up the paper, and place it in the glass; then set it on fire. When it is burnt out, or rather just as the last flame disappears, turn the glass quickly upside down into the water. Astonishing!—the water rushes with great violence into the glass! Now you are satisfied that water can be placed in a drinking glass upside down. Hold the glass firm, and the plate also. You can now reverse the position of the plate and glass, and thus convince the most skeptical of the truth of your pneumatic experiment. Instead of burning paper, a little brandy or spirits of wine can be ignited in the glass; the result of its combustion being invisible, the experiment is cleaner. —*Septimus Piesse.*

SEVERAL cast steel guns have lately been tried at Gavre, France. The London *Mechanics' Magazine* states that these guns carry about 1,300 yards, and, at 300 yards distant, they pierce through plates as thick as those of the frigate *La Gloire*. The projectiles thrown weighed 95 lbs. each.

FOR ninety days, during the suspension of launching the *Great Eastern*, she was suspended on two cradles 110 feet apart, and yet she was deflected only half an inch from her true lines. This afforded evidence of her vast strength.

Improved Button-hole Cutter.

Implements for cutting button-holes have been in use for some time, and they are found to greatly facilitate the work, cutting all the holes of precisely the same size and with remarkable rapidity. We here illustrate a neat little cutter, which may be slipped upon one of the blades of ordinary scissors, furnishing a button-hole cutter very cheap and of small bulk.

The device is so plainly illustrated in the engraving that it will be understood at a glance. A steel plate, A, with a beveled edge, c, and a point, d, is formed with a loop, a, to be slipped upon one blade of the scissors, as shown. The point, d, first punctures the cloth and renders the operation more easy. The loop operates as a stop to prevent the scissors from cutting the cloth. When not required, the

end is the small filter, B. This filter consists of a cup of hard india-rubber, closed at the bottom by a cap, which is perforated with numerous very small holes for straining the water. The inner cavity of the cup is nearly filled with a bit of sponge, c, to filter the water. As the cap screws into the cup, B, it may be removed whenever it is desired to take out the sponge for the purpose of cleansing it.

With a tube four feet or less in length, the whole apparatus is so compact that it may be carried without inconvenience in the pocket, and the material of which it is composed is not subject to injury, breakage or decay, while it enables the apparatus to be furnished at a trifling cost. This little instrument will be found equally convenient for travelers, hunters and surveyors, as well as for soldiers, for whom, at the present time, it is specially adapted.

The patent for this invention was procured through the Scientific American Patent Agency, and further information in relation to it may be obtained by addressing the patentee, Henry A. Hall, at Boston, Mass.

plate can be instantly removed, leaving the scissors ready for their ordinary use. As each of the cutters forms holes of only one size, they are sold in sets of various sizes.

The patent for this invention was granted through the Scientific American Patent Agency, and further information in relation to it may be obtained by addressing the inventor, J. J. Fearing, at South Weymouth, Mass.

HALL'S DRINKING TUBE.

We here present an illustration of the first of the inventions in this line, destined for the special accom-



modation of our soldiers. It is a small india-rubber tube, with a filter at the end for the convenience of drinking from any brook or river that may be met with on the march.

At the upper end of the tube is the mouth-piece, a, Fig. 2, made of hard india-rubber, and at the lower

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