

**Improved Orchestron.**

The peculiarity of this instrument over others of its class consists in the arrangement of the banks of keys. It will be seen that they form an angle with the side, A, so that the fingers, when the hand is passed through the band, B, are enabled to manipulate them with much greater nicety, ease, and delicacy than where the board is flat and the position of the fingers cramped and stiff. This constitutes its novel features. The most difficult music, arranged for piano or melodeon, can be executed on this instrument, says the inventor, and it is equally well adapted to accompany a singer, or lead an orchestra. One, two, or three notes can be produced at one pressure of the finger—as will be seen by referring to the engraving—giving clear and distinct tones, and adding to the power and attractiveness of the instrument.

Patented through the Scientific American Patent Agency on June 21, 1864. For further information address Ernest Pries, corner Fifty-eighth street and Second avenue, New York.

**An Armor-clad Turret Ship at Sea.**

We gave a full account some time ago of the trial of a small armor-clad sea-going turret ship, called the *Huascar*, built and fitted with machinery by Messrs. Laird Brothers, of Birkenhead. We have since obtained some particulars of her passage from this port to Brest. She is a vessel of 1,100 tons, and 300 horse power, nominal, and obtained a speed of 12½ knots at the measured mile, the indicated horse-power on that occasion being 1,650. This vessel, after being completed for sea, left here for Holyhead on the 17th inst., encountered very severe weather on the passage, but proved herself an excellent sea boat, very buoyant, and rolled easily, even when placed broadside to a heavy sea in the race off Holyhead. She left Holyhead for Brest on the 20th inst., experiencing severe southwest gales in the Channel, but fully maintained her character as a good sea-going ship, and arrived off Ushant on the 22d inst., and anchored safely at Brest on the following morning. The *Huascar* had her guns on board, viz., two 300-pounders, mounted in the revolving turret, and two 40-pounders (broadside guns), equivalent to a broadside of 680 lbs. She had also her full complement of shot and shell, and stores and provisions for some months on board, in addition to about 100 tons more coal than she is intended to carry for ordinary service. The trial, therefore, of the *Huascar* during the late severe weather we have had in the Channel, and when loaded unusually deep, is most satisfactory, and proves that armor-clad ships of even small size can be built on Captain Cowper Coles's turret principle to combine speed and sea-going qualities of the first order, carrying at the same time a much heavier and more effective armament than vessels of similar tonnage of any other construction.—*Liverpool Albion*.

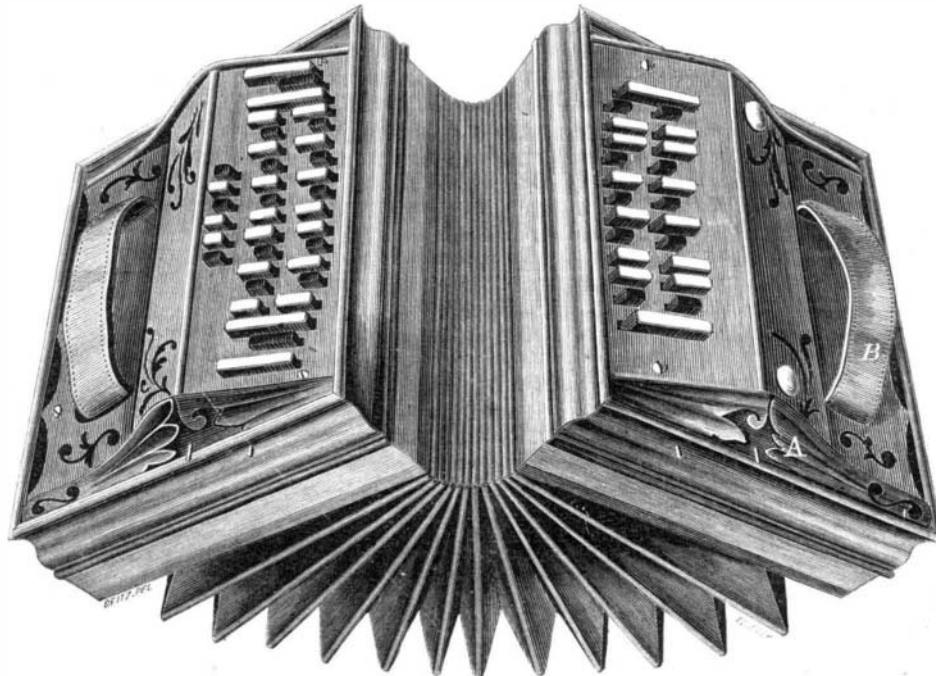
**Meerschaum Pipes.**

A correspondent, who is a manufacturer of meerschaum pipes, gives us the following information relative to these goods:—

Meerschaum (English—foam of the sea), is so called on account of its remarkable lightness and pure white color in the raw state. It is a superior species of white clay, chiefly consisting of silicate of magnesia, and is dug mostly in the peninsula of Nattoli, Asia Minor. It is sent to market in irregular blocks of different sizes, the latter fixing the price, which is much higher in proportion for large lumps than for small ones. The Turkish government owns the mines and stipulates the quotations according to

the demand, which generally exceeds the supply. The last reports from Constantinople, the principal market for crude meerschaum, say that prices advanced 35 per cent lately.

The method of manufacturing pipes is very simple: the lumps are cut into shape with a knife, after having been lightly wetted, then the bowls must be very carefully rubbed to obtain a clear, smooth surface, and afterward boiled either in pure wax, or wax, oil and fats, the latter effecting a yellow hue and, facilitating the coloring.

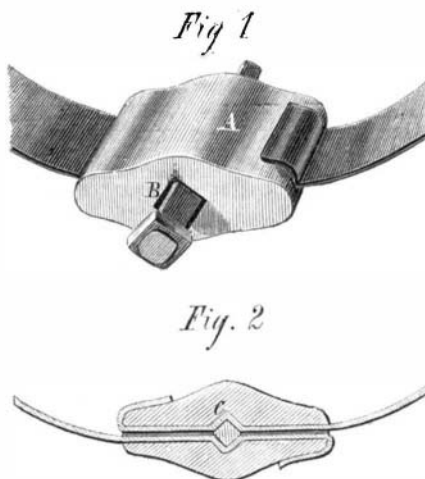


**PRIES'S ORCHESTRON.**

Imitation meerschaum is invariably made of the parings of the genuine, and nothing else. Numerous other experiments, such as the application of magnesia, etc., have proved total failures, and, consequently, there is no probability of meerschaum being manufactured on a large scale of magnesia in New York, as your article states. I am the only manufacturer, to some extent, of meerschaum pipes, made of the imported raw material in the United States.

**QUANT'S HOOP LOCK.**

This is an ingenious little device for fastening the ends of iron hoops used for binding bales or pack-



ages of any kind. It is remarkably simple and quickly attached. No holes are needed to secure the ends, and the object is attained in the simplest manner. A casting, A, has a narrow slot through it, and a square mortise, B, at right angles with the slot.

These are the details:—When used, the ends of the hoop are passed through the slot and turned over, as shown in Fig. 1; a common awl is inserted in the square hole and the parts opened; a cut nail is then driven in the square mortise, which upsets the hoop, as shown at C, in Fig. 2. This latter act not only binds the hoops firmly together, but also takes

up the slack, so that the bale is bound as tight as can be. All the parts can be cheaply made, and require no delicate handling or adjustment. A saving in time also results from the employment of it, as many more packages can be secured than by the former methods. Short pieces of iron, not available for other purposes, may be used with the lock, as it is sold so cheaply.

It was patented Nov. 28, 1865, by Frank Quant; for further information address him at Painesville, Ohio.

**Stuffing Box.**

Mr. T. H. Thompson, manager of the Durham Gold-Mining Co., Ballarat, Australia, has invented an improved stuffing box for the plungers of mining pumps. The invention consists of a large horizontal cog-wheel on the upper surface of the gland of the stuffing box. In this cog-wheel the nuts belonging to the bolts that hold the flanges of the box together are made to fit like spur wheels, the nuts being toothed. It will readily be seen that on turning one of these nuts to tighten and loosen the bolt, the larger wheel will also travel round, giving motion to all the other nuts at the same time. By having a vertical key, similar to those in use by fire plugs in streets,

a single nut may in this way readily be reached below the water at times when the getting at all of them would be almost an impossibility. A winch is also provided in a convenient position for raising the gland when repacking. We understand that several practical engineers have expressed warm approval of the Thompson stuffing box.—*Dickers's Mining Journal (Melbourne)*.

[It is singular to see how inventions repeat themselves. The device mentioned above has been used for years on steam engines.—Eds.]



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