

Another 8,000 Ton Steamer.

We recently gave an account of the coming over here of the new steamer City of Rome, and now we have to record the arrival of another great vessel of the same class, the Alaska, of the Guion line, between New York and Liverpool. On this her first passage, as a matter of precaution, steam was only carried at 65 lb., though she is fitted to carry 100 lb. Her best run was 402 miles in a day; but it is believed she will, before long, make 440 miles.

The Alaska is an admirably proportioned vessel. Her gross tonnage is 8,000; tubular length, 526 feet; breadth, 50 feet 6 inches; depth, 40 feet 7 inches to upper deck, 48 feet 7 inches to promenade deck. Her engines are of the compound, inverted, direct acting, cylinder type, the high pressure cylinder being 68 inches in diameter, and the two ton pressure cylinders 100 inches diameter each. The indicated horse power is 11,000, the highest on any steamer in the world. She is built with five decks, the first being the promenade, which runs the full length of the deck, excepting for short breaks aft and forward. For the accommodation of cabin passengers her fittings are most complete, the large saloon being the entire breadth of the vessel and situated amidships. Tables and revolving chairs are provided for 280 passengers, and the upholstery and other furnishings are handsome. Besides the large air ports along the sides of the saloon, there is a stained glass dome overhead, thus furnishing ample light and ventilation at all times. The staterooms are ranged on either side of long passageways, forward and aft of the saloon, each connected with the steward's department by electric bells and furnished with electric lights. The smoking room, ladies' boudoir, social hall, and card rooms are elaborately fitted up. The second cabin is aft, and much attention has been paid to the comfort of second class passengers. The steerage is well and conveniently arranged. The officers' quarters are on the main deck. The vessel is steered by steam, and has steam windlasses and winches for weighing anchors and handling cargo.

She has four masts, the two forward ones being square rigged, and the others schooner rigged. She is built of iron in a series of water-tight compartments, and is provided with the most modern methods for insuring safety and comfort at sea.

Large Photograph.

A photograph, probably the largest ever printed upon a single sheet of paper, is now on exhibition in the art gallery of the American Institute. It is not uncommon to see several views which have been separately printed on small sheets of paper and pasted together to make a panorama of large industrial works, etc., but this remarkable specimen was printed from seven negatives on one sheet of paper, and covers an area of over ten feet in length by about eighteen inches in height. It is a panoramic view of the Centennial grounds in Philadelphia, Pa., and so perfectly are the negatives joined that it is impossible to locate the joints. Were it not for the announcement of the exhibitor that it was printed from seven negatives, no lay observer would imagine that it was other than a single view printed from a single negative.

Duplicates of this picture have been sold at very high prices as sample works of photo art. One was presented to Queen Victoria, and is said to occupy a conspicuous place in the royal gallery. This work is from the gallery of F. Gutekunst, No. 712 Arch Street, Philadelphia.

His exhibit includes other fine specimens. A notable one is a picture five feet long by eighteen inches high, also on a single sheet; and some large views in printer's ink which combine the effect of fine steel engraving with exactness of detail that can only be obtained by the use of the camera. This latter style is especially desirable for views of engineering structures and machinery, which enables the observer to study construction with confidence.

Antidote to the Poison of Serpents.

Very interesting experiments have been made in Brazil, by M. De Lacerda, which have established the fact that permanganate of potash is one of the most energetic antidotes to the venom of snakes. M. De Lacerda has addressed a memorial of his important works to the Academy of Sciences (meeting of the 12th of September, 1881).

The result of these researches is really astonishing: thus, in a series of experiments, frequently renewed, of injecting the active venom of *boshrops*, diluted with distilled water, in the cellular tissues or the veins of dogs, M. De Lacerda found that the permanganate of potash was able to stop completely the manifestation of local injuries from the venom. Yet the same poison, which had served for these experiments, being injected without antidote into other dogs, always produced great local tumefactions, with loss of substance and destruction of tissue.

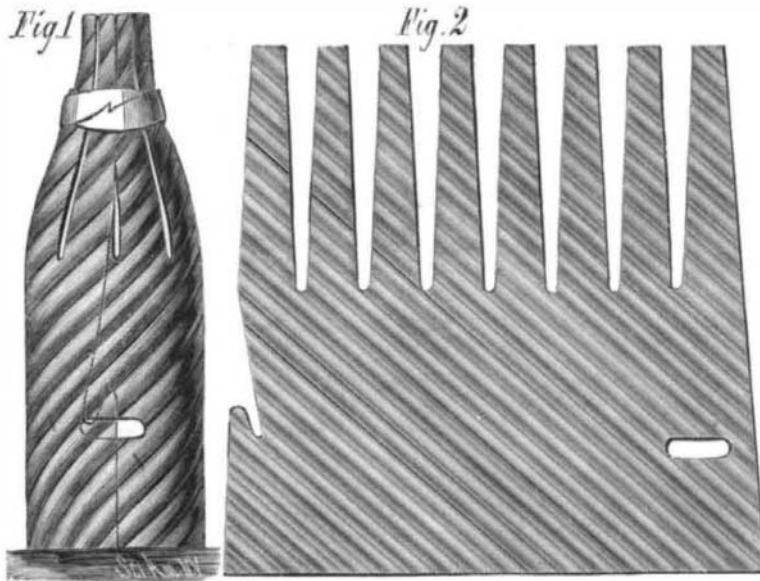
These very remarkable results have been stated on various occasions, not only by the Emperor of Brazil, who assisted at these experiments, but also by physicians, professors of faculties, and members of the diplomatic corps.

NOVEL BOTTLE WRAPPER.

The engraving shows an improved protective bottle wrapper lately patented by Messrs. H. J. Mark and W. F. Martinek, of St. Louis, Mo.

The body of the wrapper is made of veneer or pasteboard, having attached to it thick paper corrugated diagonally. At one edge of the wrapper there is a locking tongue, and near the opposite edge there is a slot for receiving the tongue.

The upper edge of the wrapper is slit to form a series of elastic fingers, which are drawn together about the neck by



NEW BOTTLE WRAPPER.

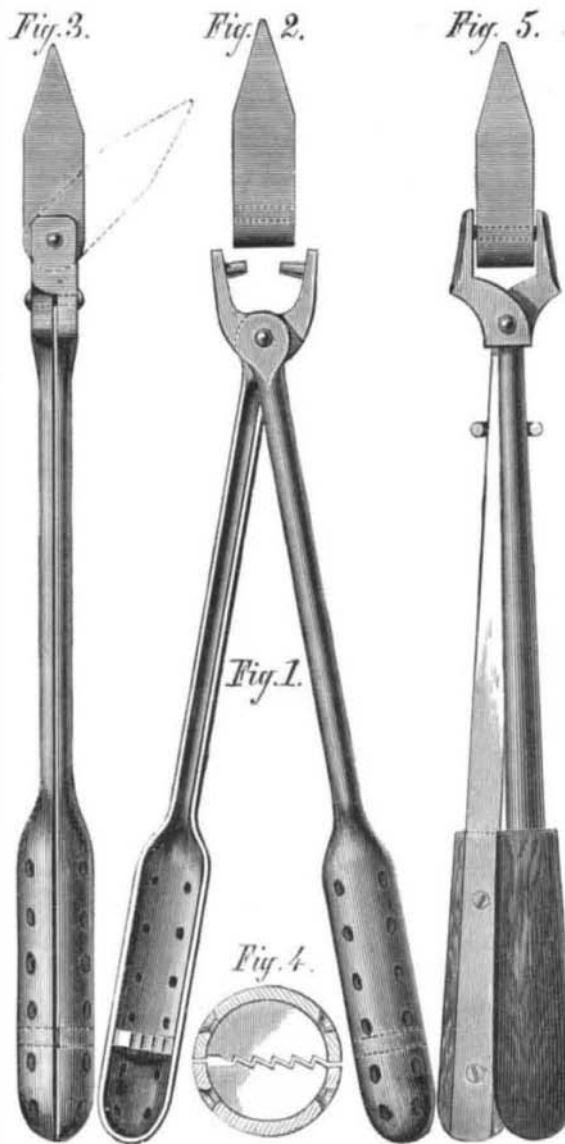
means of a paper band or tie. Fig. 1 shows the wrapper in its flat state; and Fig. 2 shows the manner of applying it to the bottle.

IMPROVED SOLDERING IRON.

The engraving shows a convenient means of adjusting the coppers of soldering irons on their handles, and also for keeping the handles cool.

Fig. 1 is a side view, with handles in an open position. Fig. 2 is a side view of the copper. Fig. 3 is a side view, showing the handles closed and the copper attached. Fig. 4 is a cross section on line *xx* of Fig. 1, and Fig. 5 shows a modified form for wooden handles.

The two portions of the handles are pivoted together to form the jaws, each having a pin or lug on its inner face. The copper is of suitable form, having a cross aperture, into which the pins of the jaws enter when the handle is closed.



IMPROVED SOLDERING IRON.

The shanks of the handle are formed of malleable iron, and their outer ends are enlarged to form a hollow handle. This portion has numerous perforations, which allow circulation of air to keep the handle cool.

On the inner side of the handle are ratchets for engagement

when the two parts are closed, to prevent them from slipping apart. With this construction the handles can be removed from the copper while it is being heated, and heating of the handle prevented. The copper may be turned at the desired angle before being clamped tightly by the jaws, and the angle may be readily changed while the tool is in use.

In using wooden handles in place of the hollow bulbs, the inventors provide a ring on the shank, as shown in Fig. 5, which, when slid outward, holds the jaws closed.

This invention was lately patented by James and Thomas H. Hughes, of Spencer, Mass.

MISCELLANEOUS INVENTIONS.

Manufacturers of paper-hangings will find it to their interest to examine the paper-hanging machine and rack recently patented by Mr. Henry Staib, of New York city. In the manufacture of paper-hangings the web of paper as it comes from the printing machine is carried to a rack, where it is suspended to dry in loops on sticks placed at intervals. This invention principally relates to mechanism for taking the paper and carrying it upon the racks, and to the racks used for supporting the paper, whereby the work is facilitated and the operation rendered automatic. In this mechanism rocking arms, which receive their motion from a rotating shaft, first move downward, and, striking a projection on a belt, which has its return movement controlled by a weight, cause said belt to carry the lower stick of a pile of sticks out upon the rocking arms, which are notched to receive the stick. These arms then move upward and deposit the stick, having the paper over it, on rack-bars above in front of pawls attached to slide-bars. A loop of

paper is thus carried to and remains suspended from the rack, while the rocking arms move back to receive another stick and loop. The slide-bars then move forward and the pawls carry the stick and loop of paper, after which said bars move back to receive the next stick brought up by the rocking arms, and at the next forward movement both sticks are carried forward. This operation is continued to any desired extent. There is also combined with the slide-bars a roller for automatically marking the web to insure uniformity of the rolls into which the paper is finally made, and a counter for registering the number of loops of paper.

Mr. William T. Lyons, of Decherd, Tenn., has patented an improvement in ice machines which is deserving of notice. The invention consists in a refrigerating apparatus composed of an air-exhausting pump and an air-supply pump separately connected with a series of pipes in a refrigerating chamber for obtaining circulation of air through said pipes by the operation of the pumps, the exhausting one of which is of greater capacity than that which supplies air to the pipes, whereby the air is rarefied, and the atmospheric air drawn in by the smaller pump, in passing through the rarefied air, absorbs more or less heat and reduces the temperature in the refrigerating chamber to the extent required.

An improved life preserver, which appears both simple and practicable, has been patented by Mr. Rosendo Torras, of Brunswick, Ga. This device mainly consists of two parallel cylinders made of any suitable, flexible, waterproof material, supported internally by longitudinally arranged helical springs, and connected externally by gyves, the rings of which encircle the cylinders, and which gyves may be laced with tie ropes. This construction admits of the cylinders being compressed in direction of their length and retained in a small compass, and, when distended, of their forming a pontoon for buoying shipwrecked persons. The extensible cylinders are fitted with flexible receptacles for food and water arranged within the springs and accessible from the exterior by necks projecting through the gyves. There is also combined, with the device, an oar for steering or propelling the raft, and which is constructed so that it may be used to lock the cylinders both in their distended and closed conditions.

An automatic hog-feeder, the object of which is to facilitate the feeding of hogs and prevent waste of the food, has been patented by Mr. Hiram T. Phenix, of Oketo, Kan. This device is formed in part of a box of any desired length and depth, according to the number of hogs to be fed and the quantity of food to be given at a time, and of such a width that two hogs may feed from opposite sides without their heads coming in contact. Said box, which has openings in its opposite sides of a size sufficient for a hog to insert its head only, is divided by longitudinal and transverse partitions into food chambers and feeding compartments having inclined covers and regulating slides, whereby the food is only supplied as it is eaten and the escape of food from the food compartments can be shut off when desired. By means of this feeder the hogs cannot waste the food, and cannot get their feet into it and dirty it.

A very simple and useful fastening for pocket book handles, which provides for the handle being shut up within the pocket book when not required for use, has been patented by Mr. Thomas P. Spencer, of New York city. The invention consists in the combination with the pocket book frame having slots and bars across the slots, of hinged straps connected with the handle, whereby the said handle can be swung down into and inclosed within the said pocket book, the cross bars of the slots forming the hinge pivots of the straps to which the handle is attached.