

## New Inventions.

### Improvement in Weaving Tapestry Carpets.

A lot of Tapestry Carpets was exhibited at the Fair, by Mr. C. Carvill, of 17 Broad st., N. Y., which attracted our attention, and we would have inserted a notice of them under the general head of "the Fair," but as we had heard something about them before, we thought it best to place the notice on our invention page. They were manufactured at Ida Mills, Troy, N. Y., belonging to Benjamin Marshall, Esq., and were woven by new power looms, the invention of Mr. John Johnson, machinist, which will soon banish all the tapestry-carpet hand looms out of the market. The carpets which they make are of a very superior quality, and each loom can now make from twenty to twenty-three yards per day. When they can do this now—when they are comparatively new—it is reasonable to suppose that they will do more when they are longer in operation. These looms are said to be ingeniously and well constructed, and under the influence, sagacity and wealth of such a man as Mr. Marshall, the invention will be well protected. A new factory is erected for the weaving of them, and, perhaps, it is not too much to expect, that in a few years more, this beautiful style of carpeting will take the place of the ingrain, as the ingrain did that of the old rag carpet; and thousands of our people will thereby be enabled to enjoy such luxuries, which but for invention and improvements in machinery, would now find them with bare floors.

We often hear the remark made by those who do not look upon such things in the same light as we do, that all these improvements which we boast so highly of, "do not make people any happier—that without such things, and knowing nothing about them, people were just as happy as they are now." This may be all true, and "if ignorance is bliss," it is equally true that "it is folly to be wise." The real necessities of life are indeed few—*plenty of food and comfortable clothing*—but who among us can be content and happy with the bare necessities of life, when we can procure more than these. We admire the good sense and christian philosophy of those who can be happy and content according to their means, and we have a far higher opinion of those who decorate their minds with virtue and noble sentiments, than those who impoverish their minds to decorate their persons or ornament their halls, but the argument in respect to cultivating the mind, is equally strong in our favor.

### Apparatus For Saving Lives in Case of Shipwreck.

Lieut. McGowan, as we learn from the Philadelphia Ledger, left that city on last Saturday, with his life car and surf boat and apparatus to save life in cases of shipwreck. There are six stations to be established, for each of which Lieut. McGowan has with him a life car, surf boat, an iron Eprouvette mortar for throwing shot, with a line attached, 350 yards; there are also iron cased rockets, capable of carrying a line 275 yards, and smaller ones to be used when the standard vessel is not more than 175 yards distant. The stations are also furnished with a boat, wagon, and every other article that can be needed in carrying out the intentions of Congress, in making the appropriation of \$10,000.

### New Gun.

The N. O. Delta states that Mr. J. A. Latil, of the Arsenal, at Baton Rouge, has invented an improvement in fire-arms which is stated to be one barrel with four chambers, and is so arranged as to shoot as rapidly as the trigger can be pulled; and yet, in size and weight, is not heavier nor more cumbersome than an ordinary gun.

### House's Telegraph in England.

We see it stated that Wilmer & Smith, of Liverpool, have become interested in House's printing telegraph, and mean to establish them upon that principle all over England. This telegraph has been patented in England for some years.

### Bed Cooler.

The Reveille, of St. Louis, says that a Mr. Ruder of that place has invented a machine for fanning bed rooms, which it describes as follows:—

"The principle feature in the invention is a couple of fans, which may be placed under a bed tester, immediately over the sleeper or patient, (nothing would suit the wants of an invalid better,) and which after the winding up of certain weights, will keep in motion during six hours, they are made of any weight or size to work on a cradle or French bedstead."

[We believe that Com. Barron took out a patent for a machine of this kind, in 1828.

### Converting Iron into Steel.

The Hartford (Conn.) Times says that a large Company in this State is about to commence the manufacture of steel from pig iron by the process patented by Mr. Isham of that place. It is stated that by this new process, common pig iron, in a few hours' time, is converted into steel of the finest quality, suitable to the best of cutlery; and being of more than ordinary toughness, it is superior for mechanical purposes generally.

We have been informed that Mr. Dickson, of Jersey City, who is now famous for making good steel, is about to commence the manufacture of steel at one operation from the pig-

hydrogen gas produces a most intense heat, and by using such a clean fluid as alcohol with this lamp or apparatus, it is capable of being used, at but little expense, in families for many purposes, especially in warm weather, for cooking, in cases of sickness, &c. For travellers on the distant wilds of the West, it is a most convenient apparatus for cooking their meats. With it, some alcohol and a lucifer match, a steak of the best venison or buffalo may be cooked, fit for an epicure, in a few seconds. Letters addressed (p. p.) as directed above, will meet with prompt attention.

### The Great Sugar Discovery.

The discovery said to be made by a Belgian chemist, named Melsem, whereby it was represented that he could change the juice of beets, &c., into crystals, without any boiling or other preparation, than merely adding a powder to the juice, is doubted by some, and a Belgian newspaper speaks against the sugar produced as having a sulphurous smell. The substance used by Melsem is stated to be "the bisulphate of lime." About from one to two per cent. of this substance is added to the juice, and to the pulp of beets. The sulphurous acid of the bisulphite prevents all chemical changes, and the lime is present in sufficient quantity to neutralize any acid that might possibly be produced. After the addition of the bisulphite, the liquid is kept for a few moments at the temperature of 212° Fahrenheit, is then allowed to settle, and after being filtered or decanted, is concentrated to 30° of Baume's hydrometer, filtered anew, and left in a warm place, where it soon crystallises entirely.

### Improvement in the Iron Manufacture.

Mr. Smith Salter, of Newark, N. J., has patented an improved mode of manufacturing iron, which must—if all stories are true—be of great benefit both to himself and our whole country. The inventor proposes to make wrought iron at a cost of \$25 to \$30 per ton—at least half the usual cost. His furnace has three combined chambers, one above the other, and all actuated by the same fire. The upper chamber is used for deoxidizing the ore, impurities, such as sulphur, &c., being carried off at a low temperature: the middle chamber for fluxing and working, and the lower chamber for reducing and finishing. The metal is taken from the last named to the hammer or squeezers. The whole time occupied in this process, from the time the ore is put into the furnace until finished by the hammer, is only two hours.

### New Propeller.

The St. Louis Reveille says that Mr. Ruder of that City, has secured a patent for a new propeller, which moves on the same principle as fishes. A large steel-ribbed fin is attached, in a horizontal position, at the stern of the vessel which, when put into motion by steam or otherwise, moves rapidly up and down, springing backward at each change, and giving the boat an impetus forward. Two smaller fins at either side, near the bow of the boat, answer the purpose of a rudder. The inventor calls the apparatus a "Whale" and certainly it is of a peculiar aquatic nature.

### Lock's Magnet e Clock.

Proff. Lock's Magnetic Clock is finished, and the different parts have been put together. It is said to operate beautifully. It is to be placed in the National Observatory at Washington.

### The Dover and Calais Telegraph.

The projectors of the line of telegraph across the British channel, at Dover and Calais, for uniting the wires which lead from London to Paris, have encountered an obstacle more formidable even than the anchors of the shipping. It is the dredging machines of the oyster boats. This fishing is carried on at that place by great numbers of dredging boats, which drag up hundreds of oysters at a draft. It is found difficult to protect the electric wire, extended across the bottom of this channel, so as to secure it against being broken by these dredging machines, it is anticipated, however, that some method will be devised of overcoming the obstacle.

## RADLEY'S PATENT SPARK ARRESTER.

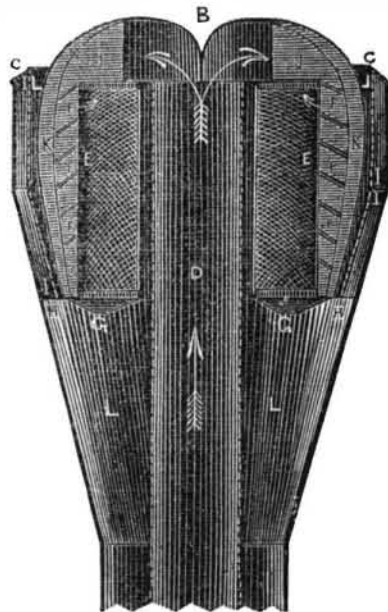
Figure 1.



This is an improvement on Spark Arresters, patented by Mr. Radley, and manufactured by Mr. E. R. Bennet, Nos. 48 and 50 Duane st., this city. The great object of this invention is not only to provide a good way to prevent the sparks from escaping outside, but also to prevent the screens from getting clogged and filling up, thus rendering it very durable, and removing an evil attributed to other spark arresters. It is well known that the steam of a locomotive is exhausted into the smoke pipe, and from its moisture, and the force with which the sparks are driven against the screen, its interstices are liable to choke up in a very short time, thus rendering it useless. This evil is obviated in this invention, as the sparks are prevented from being forced against the screen, and some of them having been tested for fifteen months, and others used on a great number of our railroads for a somewhat shorter period, their character for utility and durability has been firmly established.

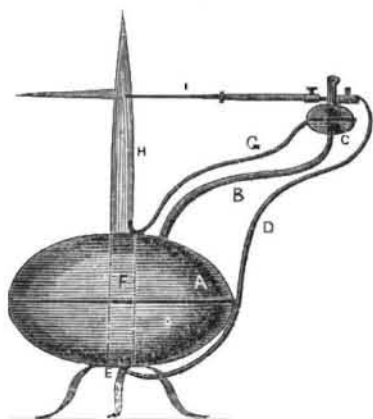
Figure 1 is a side elevation, and fig. 2 is a vertical cut through the middle. The same letters refer to like parts. A is the outside case; C is a narrow screen around the top, between the inside and outside case, to allow any condensed air to escape therefrom. B is the top, with a series of radiating openings for the smoke from the screens. D is the smoke pipe, up which the smoke and sparks are driven, but when the sparks come to the top of

Figure 2.



this pipe they are deflected to the sides by an inverted central conical cap plate, when they pass through the channels, J J, and into the side chambers, K K, when, by their superior gravity they fall down through openings, G G, into the apartment, L L, down to the boiler head. No dirt of any kind can pass up from the apartment, L, although there is communication to the top through small openings, H, to the screen, C, above, for the compressed air to escape, for the channel is divided by branching angular inclined steps, I I, which prevent any dirt from getting out through the screen. These steps or shelves cannot be well set forth in this section, but the reader must suppose them to run to the right and then to the left, inside of the outside case, fig. 1. F F are a series of blinds extending down outside of the screens, E E. These blinds prevent the sparks from coming against the screens, while they allow the smoke, as indicated by the arrows, to pass freely through the screens and out at the top openings. This Arrester is, therefore, an apparatus secured in a case placed to sit snugly inside of the outside case, A, and it is divided into a number of screening cells, which throw the sparks down into L, through the orifices, G G, and never allow the sparks to come forcibly against the screens, thus preventing them from being choked up, and rendering the whole apparatus very durable and correct in its operations.

### Alcoholic Self-Generating Vapor Lamp, Blow-Pipe, and Heating Apparatus.



This apparatus is the invention of Mr. K. Anderson, and the patent is owned by Messrs. Anderson, Farwell & Erwin, of Painted Post,

Stauben Co., N. Y. It is capable of being applied to a hundred useful purposes, for jewelers, dentists, chemists, and others.

A is a vessel containing the alcohol or burning fluid. It is made with an opening or tube, F, through the middle of it. At first, for a moment, the heat of a lamp, candle or match, is applied in this opening till a slight vapor rises through the tube, B, into the small chamber, C, when it passes down the tube, D, and is ignited at the lower part, E, of the opening, F. It then generates its own vapor, part of which is conveyed to feed the tube, D, and part of which is conveyed to feed the blow pipe, I. There is a small cock on the blow pipe, and one on the pipe, D, at the top, to regulate the amount of vapor to each. In this engraving an auxiliary pipe, G, is employed, so that it might be used for a heating apparatus, to heat any kind of vessel. It is well known that