

## New Inventions.

Electro Magnetic Engine.—Letter from Prof. Page.

WASHINGTON, D. C., Oct. 12, 1850.

MESSERS. EDITORS—The conclusion of an article in your paper of to-day, upon the subject of Electro Magnetism as a motive power, reads thus, "honor to whom honor is due." The same article speaks of Mr. Davenport as having made the first electro-magnetic engine in the world. In pursuance of your commendable spirit and motto, I beg leave to call your attention to the following facts:—The first electro-magnetic engine in the world was invented, and I believe made, by Prof. Henry, Sec'y Smithsonian Institution, and published in Silliman's Journal in 1831. In 1832 and 1833, several large engines were made in Europe by Prof. Dal Negro, Prof. M. De Botto, and by Dr. Schultless, accounts of which are given in scientific journals. The first rotary engine made in this country was invented by Dr. Edmonson, of Baltimore, and published by him in Silliman's Journal in 1834; this engine was upon quite a large scale. It was after this publication that Mr. Davenport first turned his attention to the subject, although there is no doubt but Mr. Davenport's invention was original with himself; and considering his circumstances at that time, it reflects great credit upon his genius and perseverance. I forgot, also, to mention that Mr. Sturgeon, of England, invented several electro-magnetic engines in 1832, with which he worked miniature pumps, saw mills, &c. I will only add that, so far as I can learn from any publication, record or evidence of any sort, the peculiar principle of my present engines was first adopted by myself, and some time after by Mr. Davenport. His earlier experiments in this way appear, from his account, to have exceeded mine in magnitude, and this must have been expected from the extensive means and facilities he then enjoyed. Respectfully,

CHAS. G. PAGE.

(To Prof. Page's letter we also say, "honor to whom honor is due;" we have no desire to ruffle a single honor which belongs to any inventor—our object is truth, and Prof. Page's honor, as an inventor, is as sacred to us, as Mr. Davenport's.)

## Another Coal Locomotive.

Another coal locomotive, says the Pottsville Mining Register, has been invented by Wm. Dibble, something like that of Mr. Dimpfel which we described lately, but in our judgment an improvement. It is clear enough that all the objections hitherto existing will, by either of these engines, be removed; and we now rely upon the general use of our anthracite in land and marine engines, in preference to all other fuels. We may mention that Collins' Liverpool Steamers are so far dissatisfied with the Cumberland bituminous coal, as to use a great proportion of anthracite now, with a probability of soon using it altogether.

## Improvement in Seraphines.

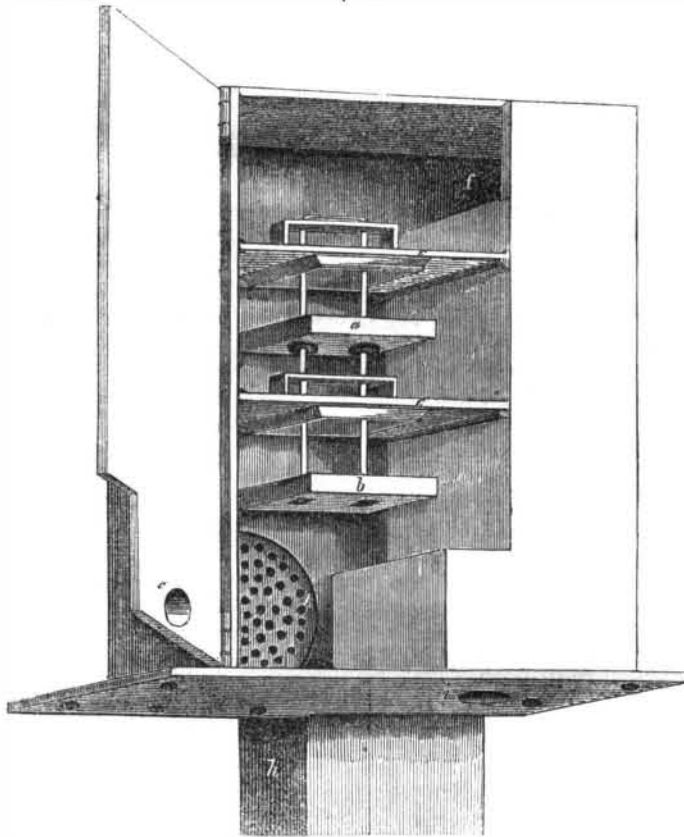
Messrs. Jones & Burdett, of Brattleboro', Vt., have invented two new and useful improvements on Seraphines, for which they have taken measures to secure a patent. The improvements consist in combining the windchest with the foundation, having the bellows inside, and the sounding board outside, below. This arrangement gives the instrument greater brilliancy and clearness of tone; for, by having the sounding board inside, as in old instruments, the sound is greatly smothered, and of course inferior to the new arrangement.

## Pavements in Boston.

We have received a letter from Mr. Nicholson, the inventor of the pavement in Boston, mentioned in No. 2, Scientific American, this Volume, wherein he states that he caused a short section of the Western Avenue, Beacon street, to be paved with two modifications of his invention, in July, 1848, (not ten years ago, as mentioned in the article referred to,) it has, therefore, been in use over two years, and although it was intentionally composed of inferior materials, yet it deserves and receives general commendation.

## ROBINSON'S PATENT SHIP VENTILATOR.

This apparatus is the invention of Warren Robinson, of New Haven, Conn., and a patent was granted for it a few weeks ago. This engraving is a perspective view of the Ventilating Chamber, with part of the back thrown open to show its internal arrangement. It is located in the bulwarks, but is independent of them, being bolted to the planksheer. *k* is a perforated plate or register to admit the air, which passes through the openings in the plates, *c c*, to the passage, *f*, and is thence conveyed through this passage to the cabins by the air-duct, *h*, which is extended to the



floor, and communicates with the cabin by a register. For a discharge of the vitiated air, a like chamber is used with the air-duct, *h*, terminating at the ceiling by a register, the same as the former one. A communication with the timbers is effected through the opening, *i*, which communicates with a like opening through the planksheer, by which means constant ventilation is afforded the timbers without any detriment to its capacity for ventilating the cabins.

When a sea comes in board, and enters the register, *k*, it is carried off by the pipe, *c*, or in

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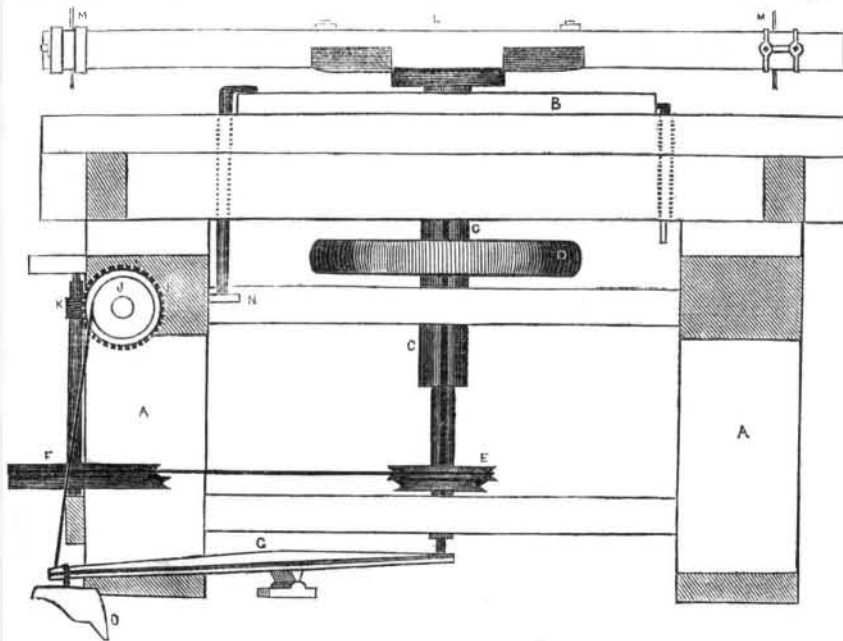
ing carries up the puppet valves, *a b*, which are of cork, on its surface, and closes the openings in the plates, *c c*, thus preventing the water reaching the passage, *f*, the only opening to the cabins. As soon as the water subsides, the valves fall to the position shown in the cut, by their own gravity. The valve, *b*, is secured to the suspending rods, carrying them and its duplicate valve in its motions. The duplicate valve, *a*, rests upon the collars and slides on the rods independently of the other; so that, should any obstruction by a foreign body prevent the lower valve from closing tight, the valve, *a*, would accomplish the object.

For ventilating the cabins and timbers of vessels; for securing the health and comfort

of passengers; for saving thousands of dollars in cargo, and for preventing the premature decay of those vessels to which it is applied, by affording certain ventilation under the most adverse circumstances, even when the shipped seas are constant, and all other, but less effective, means of ventilation usually resorted to under ordinary circumstances are of no avail, then its transcendent qualities are so self-evident, that viewed in the light of honest truth, it is at once pronounced to be, as it really is, the desideratum of the age.

Those who desire to obtain more information about this excellent invention, such as the purchase of rights, &c., can obtain it by letters addressed (*p. p.*), to Mr. Robinson, William street, New Haven, Conn.

## ADAM'S PATENT FELLOE CUTTING MACHINE.—Fig. 1

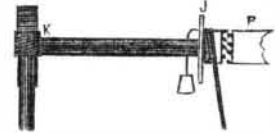


This is a representation of J. & L. Adams' improved machine for Cutting Felloes for Wheels. In Volume 4 we illustrated a felloe machine of the Messrs. Adams, as be-

longing to his first patent; but the above, if any of our readers will take the trouble to make the comparison, is almost a different machine, it is so improved; and as improved,

patented. Figure 1 is a front elevation, showing all the parts, so as to give a correct idea of its construction and operation. Figure 2 is a section, showing the clutch which throws the step of the cutter shaft out and in gear, to elevate and depress the cutters. The same

FIG. 2.



letters refer to like parts. A A represent the sides of the frame. B is an oak plank on the table, it is held between jaws, which extend down under the bench, as shown by the dotted lines; L L are two arms, they are secured on the top of a revolving vertical shaft, C. M M are the cutters or knives for cutting out the felloe; the one is set farther out than the other—the distance of the width of the felloe to be cut, and, as the arms revolve, the one knife cuts the outer and the other the inner circle. These knives can be shifted on the arms to cut felloes for wheels of a greater or less diameter. As these cutters must descend to cut down the thickness of the plank, the vertical shaft, C, is made to rise and fall as follows:—the lower end of said shaft is secured on the end of a step, G, which is nothing but a weighted balance lever, O being the weight at its other end, to allow the weight to be raised to lower the shaft, C, and vice versa; this is done by a cord or rope extending from the weighted end over a roller, J, on the cross shaft; on this shaft is a gear wheel, to gear into a worm, K, on the upright or vertical spindle. There is a clutch, P, on the inside of the roller shaft, J, and a handle outside throws the feed out and in gear. The worm shaft is the feed, a band from pulley E to pulley F gives motion to the worm, K, which turns the gear wheel, and thus winds the rope from the weighted end of the lever, G, around the roller, J, thus elevating the weight, O, consequently depressing the other end of the lever, G, lowering the shaft, C, and gradually bringing down the cutters, as the felloe is being cut out. When the felloe is cut, by throwing the pulley, F, out of gear with the roller, J, by means of the clutch (P, fig. 2) and the handle spoken of, the weight, O, at once drops down and the cutter shaft, with the cutters, rise up above the table; D is the driving band pulley. The whole machinery is exceedingly simple, and its operative qualities are excellent: we timed its operation as it was at work at the Fair, now in Castle Garden, and found that it could cut out sixty good felloes easily in an hour. This machine has taken not a few prizes at Fairs. It is going from New York to the Fair of the Mechanic's Institute, at Baltimore.

Messrs. J. & L. Adams reside at Amherst, Mass.

## Sewell's Marine Salinometer.

We have had the pleasure of seeing one of Sewell's Marine Salinometers, since we noticed them, as copied from a cotemporary, two weeks ago. We have also seen drawings and a description of the same, as published in a pamphlet by Mr. Sewell, in which are a number of certificates from highly respected engineers (some of whom we know,) which speak highly of its merits. Salinometers have been in use for a number of years,—one is described by Scott Russell, as invented by him in 1842, but it is not as simple as that of Mr. Sewell, who is an Engineer in the U.S.N. Mr. Pike, in this city, makes the instruments, and at some other time we shall take the opportunity of illustrating and describing it, besides one or two others.

## Proof of Excellence.

A Parisian writer, in a eulogy on Balzac, the distinguished French novelist, says, "as the greatest proof of his excellence as an author may be mentioned the distinction which he shared with the great Moliere; he was refused admittance to the Academie." This reminds one of Piron's celebrated epitaph on himself: "Here lies Piron, who was nothing—not even an Academician!"—It is no sign of ability to have D. D., L.L.D., C.E., F.R.S., Prof., Hon., or Gen. attached to a name.