



## New Inventions.

### New Plan of Aerial and Terra Firma locomotion.

Mr. Franklin Kelsey, of Middletown, Ct., has sent us a drawing and description of a new mode of traversing over the hills and the valleys away to distant lands by a combined celestial and terrestrial apparatus. His plan is to erect a wire or other rope on elevated posts, like our telegraph wires—and to have the rope or wires pass over pulleys like an endless apron and to have an inflated balloon and carriage attached to the endless rope to buoy up the car,—the same to be propelled by a steam engine. It is simply an elevated railway combined with a balloon, operated in the mode of the cars on steep inclines. There is a great deal of ingenuity expended at present to construct aerial ships and bring about some feasible plan of aerial navigation.

### Machine for Turning Irregular Forms.

Mr. Allen Goodman, of Dana, Mass., has made some improvements on machinery for turning irregular forms, for which he has applied for a patent, and which promises to be valuable. The design of it is principally to turn ornamented pillars for furniture, &c. He employs the same motion as the common lathe, and the cutter is operated in the same way—using a slide rest, but which is guided by cam patterns on a vertical revolving shaft. A number of patterns are used on the same shaft and the shaft can be shifted up and down, bringing any of the patterns to guide the cutters at any moment, so as to change or induce modified designs to be turned on the same pillar, or other piece of ornamental furniture.

### Improved Mortising Machine.

Mr. John C. Macomber, of Plymouth, Wayne County, Michigan, has applied for a patent on an improved Morticing Machine, which by the manner the cutters are combined with tension springs, and the manner of regulating the tension of the springs, enable the cutters to be operated by a reciprocating motion so easily regulated by the operative, that he can cut the most delicate chip that may be required to make a correct mortise, with an accuracy not surpassed by the most careful handwork.

### New Invention.

Mr. Hiram C. Brown, of Xenia, Ohio, an excellent mechanic, has invented a very useful machine for raising brick, mortar and other substances to any required height, thus saving a vast amount of laborious work. We might mention several other novel inventions originated by him. He has recently obtained letters patent for an improved Weather Strip for doors, &c.

### New Invention in Baking.

The Glasgow Citizen (Scotch Paper,) says that a machine has been invented in that city which both kneads the dough and moulds the loaves into the required shape, ready for the oven. One machine not quite a yard in length and 18 inches in breadth, by the attendance of one man accomplished as much work as five bakers, and the bread was of the best quality. The Citizen also says—but we are doubtful of its correctness—that “by a new and original process of mixing and kneading, which can be done either with or without barn (yeast) the usual loss of weight attributed to evaporation in ‘raising the sponge’ is avoided, and a great saving of flour, as well as time and labor is effected.”

[Were it not for the statement “time and labor” is saved by the latter process, we should have supposed that it was the French mode of making bread, but it takes more time and labor to make, than by the processes now employed among our bakers.]

The progress of invention is onward. The discoveries of the future must eclipse those of the past.

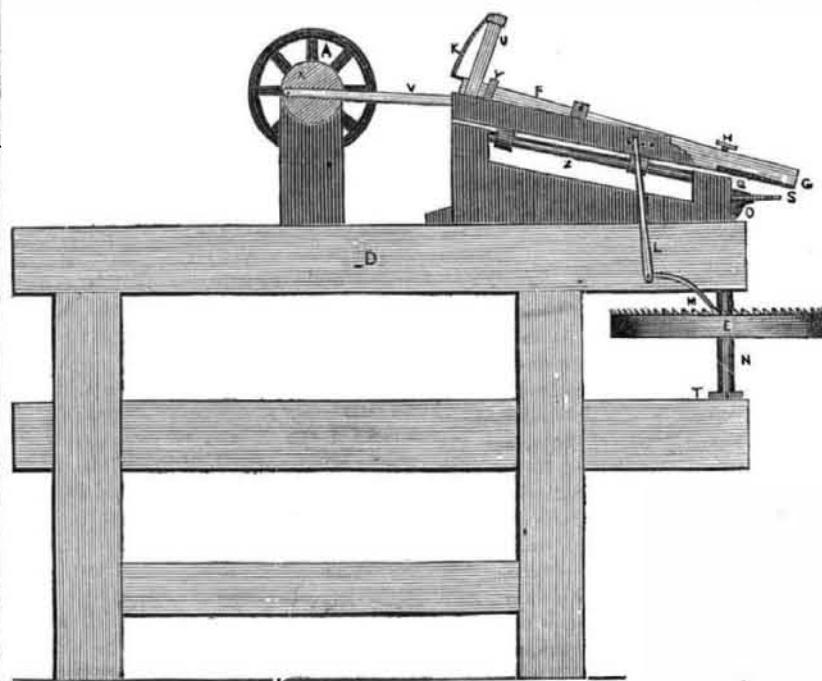
### New Copying Printing Press.

The Baltimore American says: “We had recently the pleasure of examining a small but very ingenious machine, recently invented by our Townsman, Mr. Oliver T. Eddy, which promises when perfected, to be of very great utility. It is an instrument which will print, with almost the perfection of an ordinary printing press, a single copy of any document, and with about the same rapidity as the document can be transcribed by a good penman—the copying done by the machine, being of course, more plain and more easily read. Mr. Eddy designs to offer the use of this invention to the Departments of Washington, and it they are

found serviceable there, to place them in the various Record offices, and wherever copies of documents are wanted to be made with accuracy and plainness. They are played on, as it were, striking keys answering to the letters of the alphabet, and the response is the instantaneous impression on the sheet.

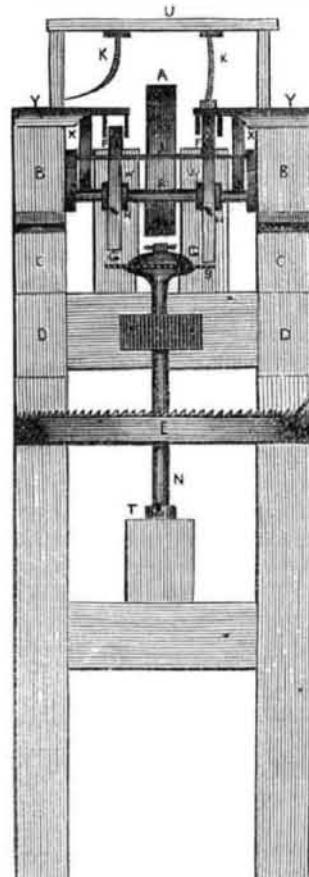
[We do not believe that any printing machine operated by keys can transcribe as fast as a good penman. It may print plainer than a pen, but it appears to us, that the pen can be made to travel over a whole word while the hand is changing from one key to another. There may however, be something about the above press which removes all objections.

### BROWN'S CIRCULAR SAW FILING MACHINE.—Figure 1.



This machine is the invention of Mr. Israel F. Brown of Columbus, Georgia. No small degree of interest has been manifested to know something about this machine, as accounts have found their way far and near, relative to its excellence for the purpose intended. It is especially designed for the saws of the cotton gin, and the following description will convey plainly a knowledge of its principle and operation. Fig. 1, is a side elevation, and Fig. 2 an end elevation. The same letters refer to

FIG. 2.



the like parts on both the figures. The principle of the invention is to sharpen the saw by a file moved by a reciprocating horizontal motion operating alternately upon each tooth of the circular saw, which is moved round on a vertical spindle under the file.

**DESCRIPTION.**—D, is a frame or table. A, is a power wheel to drive the machine. B,

is a sliding frame C, is an incline frame with upraised ends into which is fixed the guide bar or rod Z, on which the frame B, is secured and slides by the clasps seen embracing Z. F, is a reciprocating bar fixed on the top of the inclined slide, and G is the angular file secured under this bar to sharpen the saw. The file passes through a loop below which is screwed firm up by the nut H. The file in its bar is moved up and down the incline by V, a connecting rod secured to the drum X eccentrically, or a crank will answer the same purpose, to give the file a reciprocating motion, as the wheel A is moved round. S, is the small saw to be sharpened, it is placed upon a vertical shaft N, which revolves in proper boxes T. The saw to be sharpened is set upon a disc O, on the shaft, and secured by a screw cap or bonnet above, which is easily put on or taken off. It requires but a moment to shift the saw. Every revolution of A makes the file give one rasp to the saw and the saw is moved one tooth during every revolution at the same time. The saw therefore has an intermittent circular motion and the file an inclined reciprocating motion. The saw is held to receive the action of the file, by a ratchet wheel E, on the same shaft. This ratchet wheel is operated by a ratchet M, on a vibrating rod L, the top of which is operated by the reciprocating motion of B, as will be perceived. The ratchet wheel E, by the ratchet holds the saw S, to receive the action of the file G, on the tangential edges of the saw teeth, during the file's forward motion, but a backward motion of the file would injure the curved edge of the saw teeth were it allowed to touch the saw. This is obviated by a spring K, attached to the end of the file bar and an upright U, which lifts up the file above the saw on its return motion. The file must be set on the frame to sharpen the teeth on such a line as to file the teeth, as will strike only the tangential line of each tooth. This machine may be driven by any kind of power.—Its utility is self-evident, and it is of no small value. Measures have been taken by the inventor to secure letters patent.

### Steam Guage.

The St. Louis Republican notices the invention of a steam guage by A. S. Lyman, and says: “This guage, although separated from the boiler room, yet with the doors shut, and without any intimation or knowledge without,

any one may understand when the fire doors are open—when fresh fuel is added—when the pump is keeping up a supply of water, and every cut off of the steam made by each revolution of the engine. All this is shown upon a plate, like the plate of the thermometer, graduated and marked by degrees and figures, and reduced to a scale which shows the exact weight of steam carried—and the precise condition of the water in the boiler. The index mercury rises as the pressure of the steam increases, and the index mercury for the water rises as soon as the water falls too low in the boiler. In either case, the effect is the same on one or the other of the indexes. If either go to a point beyond that of safety, or to a point which is usually esteemed unsafe by men conversant with the subject, the gauge is so constructed that as soon as it reaches that point whether from the high pressure of steam or the low state of the water in the boiler, it throws a connected piece of machinery into operation and gives instantaneous alarm to all in the vicinity. It has been partially introduced upon several boats with the most decided success.

[Is not this the common mercury gauge with its qualities a little exaggerated. Wherein consists the difference?

The qualities ascribed to it are certainly great. It is just the thing wanted to prevent explosions, which have been very frequent lately. On the 26th ult. at Allegany, opposite Pittsburg, a boiler burst by which a number of lives were lost and 5 buildings destroyed. The cause of steam boiler explosions does not appear to be a problem, but the preventing of explosions seems to be. If Mr. Lyman's gauge can perform all that it is represented to do, the problem of prevention is at once solved.

### Discovery to Restore Decaying Ivory.

Mr. Layard, in his recent explorations among the ruins of famous old Nineveh, discovered many ornaments of glass, which shows that the ancients, far anterior to our knowledge of its discovery, were acquainted with the process of making it. Among many wonderful discoveries made in the ruins, Mr. Layard exhumed some splendid works of art, carved in ivory. When the ivory arrived in England, it was discovered that it would crumble to pieces and fall into dust. Prof. Owen attributed the cause of decay to the departure of the albumen from the ivory and recommended the articles to be boiled in an albumen solution. The experiment was tried with the most happy results. The old ivory has been thereby rendered as firm and solid as when it was entombed, and the probability is that these splendid works of ancient Assyrian civilization will astonish future generations a thousand years hence.

### Animal Electricity.

The London Sun says that Mr. Alfred Smeel, the surgeon to the Bank of England, and inventor of the battery which bears his name, has announced important discoveries in animal electricity.

By a test which he terms electro voltaic, he has discovered that the termination of the sensor nerves are positive poles of a voltaic circuit, whilst the muscular substance is the negative pole. The sensor nerves are the telegraphs which carry the sensation to the brain and the motor nerves carry back the volition to the muscles. The brain he infers to consist of five distinct voltaic circles, which upon theoretical grounds; he believes to be sufficient to account for all mental phenomena. Mr. Smeel has succeeded in making artificial electric fish, and artificial muscular substance.—Should these researches be fully confirmed by other investigators, they must be regarded as the most important physiological discovery of modern times.

The above must be received with some caution. The idea that the brain is an electric battery, is not new however.

### Tunneling a River.

The citizens of Chicago are agitating the project of tunnelling the river at that place. The bridges have been so often carried away, that they think a tunnel will be cheaper in the end than to re-construct the bridges carried away by the late flood, without making provision for their future permanency.