

Reported Officially for the Scientific American  
**LIST OF PATENT CLAIMS**  
 Issued from the United States Patent Office  
 FOR THE WEEK ENDING MAY 18, 1852.

**CARDING**—By Jonas Holmes & Ephraim French, of Lee, Mass.: We claim traversing the doffer or dofers of a card, or setting the teeth upon them, serpentine or zig-zag, or in such other curves, points, or angles as may suit the taste or fancy of the operator; also to traverse them, when so set, if desirable, so as to take the wool or other materials, from such parts of the main or other cylinder of the card, and deliver it to the condensing rollers or other apparatus, so as to make roving variegated, either in colors or materials, or both, when said colors or materials are fed upon the card, substantially as described.

**STOVES**—By G. W. Kennison, of Newburyport, Mass.: My invention consists in a combination of the following particulars or elements, viz.: first, a close drum or chamber, made with one or more air inlets, and their closing slides, or doors, in the lower part, and a fuel opening and door at or near its upper part.

Second, a fire pot or chamber of combustion, placed within the said drum, and having a grate in its lower part, and a smoke discharge pipe leading out of it at or near its upper part.

Third, an air space under the fire-pot grate.

Fourth, a space between the external sides of the fire pot and the internal sides of the drum, and made to freely communicate with the space under the grate.

Fifth, a space above the fire pot, or place for the fuel, and made to freely communicate with the space around the fire pot.

Sixth, a fuel supply opening and door, and an air register in the top of the fire pot, the whole being arranged and made to operate together, substantially as described.

**SHIP'S BLOCK**—By Chas. H. Platt, of New York City: I do not claim the metal plate for connecting the cheeks, for that has been previously employed; but I claim the employment or use of the metal bands or hoops, said hoops or bands encompassing the cheeks and fitting in grooves in the peripheries of the cheeks, the hoops or bands having eyes formed in them at the upper end of the block through which the bolt passes, securing the cheeks the proper distance apart at the upper end of the block, as set forth.

**UMBRELLAS**—By J. V. Tibbets, of New York City: I do not lay special claim to the device consisting of a female screw slide working over or on a screw rod, and operating together, for opening and closing the frame of the umbrella, as the devices to effect this may be varied; but I claim distending or opening the umbrella by the rods which have heretofore simply served as studs to the covering, and been permanently attached thereto, the covering being secured to the apex of the central rod, and the lower ends of the distending rods; and this I claim, whether the inner ends of the distending rods be made to descend or the central rod to ascend with the apex of the covering, in distending the umbrella.

I also claim the manner of securing the cover to the frame, viz., by means of swivels attached to the cover and screwed on to the ends of the rods, as described.

I also claim the application of the springs of the rods to the slide, operating in the manner and for the purpose described.

**IRON SAFES**—By Wm. Alford & J. D. Spear, of the District of Southwark, Pa.: We claim the application of chalk, or whiting, which has been subjected to the action of acids, and has been partially deprived of the carbonic acid, the material which we use being, in fact, the waste, or residual matter left from the manufacture of what is called mineral water, after chalk or whiting has been subjected to the action of acids for the purpose of expelling a portion of its carbonic acid, this residual matter consisting, substantially, of the substances named in the analysis before referred to in the construction of double iron chests or safes, in the manner described, or in any other manner substantially the same.

**SAW SETS**—By Asahel G. Bachelder, of Lowell, Mass.: I claim the dog or set, so constructed and arranged as to traverse or slide upon a rod or bar in a direction parallel to the toothed edge of the saw, for the purpose of setting the same, substantially as described.

**STRAINING SAWS IN SAW MILLS**—By Edward Booth, of Philadelphia, Penn.: I claim the employment of the lever, or its equivalent, the spring connected to the lever by a rod or link, which is secured or attached to the lever near its fulcrum, both operating together and in combination with a reciprocating saw connected to the lever, and the whole being constructed, arranged, and operating substantially as described.

**CARTRIDGES FOR BREACH-LOADING GUNS**—By Wm. W. Marston & F. Goodell, of New York City: We claim the application of the leather breech-piece to cartridges used with breach-loading guns, such leather breech-piece serving the purposes of a foundation for its own cartridge, a protection to the breech-pin, a wad for the next cartridge, in succession, and of a swab to clean out the sootage caused in the barrel by the antecedent explosion, producing a safe cartridge for pieces that load at the back of the breech, and in which explosion is also caused in the line of the axis of the barrel, substantially as described, but without regard to the sizes of arms with the cartridges, and irrespective of the machinery or mechanical means, by which the cartridge itself is made.

**SWINGS**—By Edward Maynard, of New York City: I claim the combination of the wire frames constructed as set forth, with the net work and swing cords.

**COTTON BATTING**—By E. P. Rider, of Brooklyn, N. Y.:—I claim uniting two or more layers of cotton batting together by means of any glazing material, thereby producing a new article of manufacture, which I term cotton felt, to be used for upholstery and all other purposes to which it is applicable, as set forth.

[This is an important invention for upholsterers, and we predict that, within a few years, cotton will be the principal article used for nearly all kinds of upholstering purposes.]

**CHURNS**—By Clarkson Rhodes, of Morrow Ohio: I claim hanging the series of beaters or dashers by

rods extending from the shaft, the lower ends of which rods support the fulcrum on which the beaters or dashers move (not confining myself to the number or form of the dashers), the said dashers being operated by the rods and bell cranks, substantially as set forth.

**OVENS**—By T. N. Reid, of Baltimore, Md.: I claim the construction of said oven, with recesses on the side, or slides, for fuel, substantially as set forth, and in combination therewith, the cooking chambers, as described.

**HAY RAKES**—By C. R. Soule, of Fairfield, Vt.: I claim so constructing revolving spring tooth rakes, as to bring the centre of revolution nearer the lower ends of the teeth, than can be done by having them revolve on the head, around which the teeth are coiled (which is the usual mode), by which means I cause them to revolve much quicker, and in giving a much shorter distance than otherwise can be done, while, at the same time, they revolve much easier and more readily, in consequence of having the second head, coil, &c., to balance, or nearly so, the re-

maining left of the teeth, &c., which will be on the other side of the centre of revolution, or nearly so, thereby giving the required length and elasticity to the teeth, with a quick and easy revolution, which I accomplish as set forth, or by means analogous thereto.

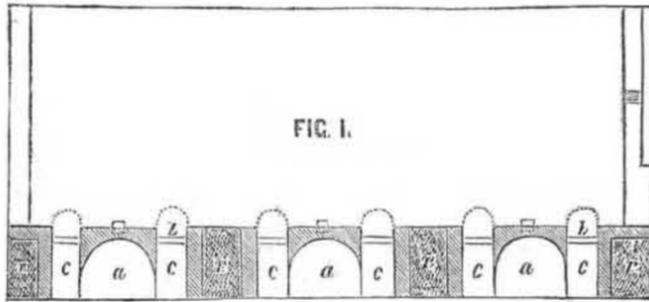
**CEMENTS**—By B. S. Welch, of Brooklyn, N. Y.: I claim the primary cement, as described, formed of the hydrate of lime in a finely subdivided state, and resin in a finely subdivided state, mixed together with water in a cold state, for the purpose set forth.

**DESIGNS.**  
**COOKING STOVES**—By T. A. Herrick, of Boston, Mass. (assignor to L. M. Leonard, of Taunton, Mass.)

**COOK STOVE**—By N. S. Vedder & Wm. L. Sanderson of Troy, N. Y. (assignor to Peter J. Clute, of Schenectady, N. Y.)

[Just one half of all the Patents in the above list (exclusive of the designs on stoves) were cases on which the applications were prepared at the Scientific American Office.]

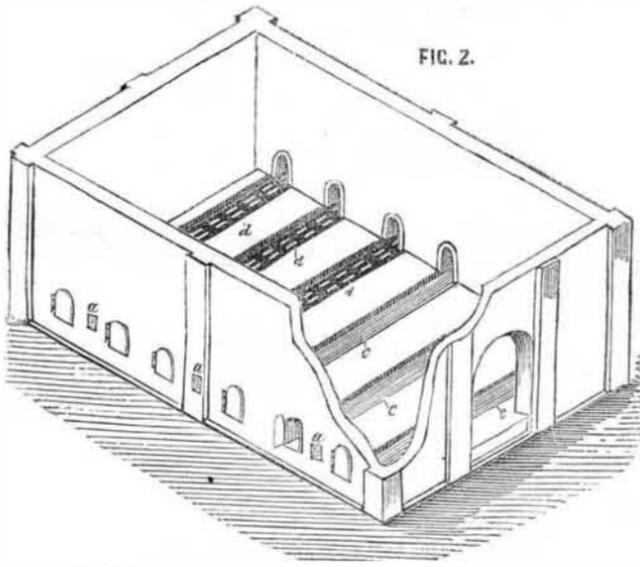
**LINTON'S IMPROVEMENT IN BRICK KILNS.**



This invention is an improvement in the construction of Brick Kilns for burning coal or hard wood, and was patented by the inventor, William Linton, of Baltimore, Md., on the 20th of last January, 1852. The improvement consists in the form of the air chambers, and the bottom of the fire beds, and in the mode of introducing the air into the kiln for igniting and burning the fuel, and

causing a free, steady, and unimpeded heat, equalized throughout the body of the kiln, by which fuel is economized and the time required for burning the kiln shortened.

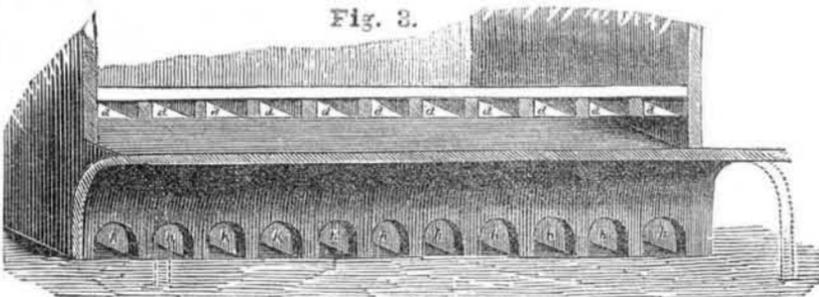
Fig. 1 is a sectional view of the air chamber, as situated a little below and between each of the fire beds. Fig. 2 is a general view of the kiln, with a portion of the wall removed to show the fire beds. Fig. 3 is a



sectional view of the air chamber, showing the openings or recesses.

The construction is as follows:—An arch, fig. 1, *aaa*, is formed a little below and between each of the fire beds, *bb*, in which openings, *ccc*, are made that serve to admit the air up into the fire beds, *bb*, through the conductors, *ccc*, (as at fig. 3, *hhh*, and *ddd*), made therein, so as to cause a free current of

air to every portion of the fire beds, for the purpose of equally igniting the fuel thereon. The ashes are discharged into the air chambers, and the fire beds are kept free. The bottom of the fire bed may be covered with an iron grating, as at fig. 2, *ccc*, and this is essential where coal is the fuel used, or where wood is the fuel they can be covered with brick, as at fig. 2, *ddd*. *aaa* are vent



openings leading to the air chambers. By the above improvement the inventor alleges he is enabled to burn 7,000 bricks with one ton of bituminous coal, and 4,000 bricks with one cord of oak or other wood.

For further information apply to the patentee, corner of Lexington and Pine streets, Baltimore, Md.

**Preservation of Milk.**

Various plans have been brought forward from time to time, for keeping milk in a fit state, at least for using with coffee and tea.

Milk has been preserved in the following

A much better method of preserving milk is that first pointed out by M. Dirchoff, the Russian chemist, namely, to solidify it by driving off the aqueous portion by a gentle heat. Specimens of consolidated milk were shown in the Great Exhibition; and it was stated that, after being dissolved in boiling water, and re-produced in the form of milk, the solution will keep pure for four or five days. As milk contains 873 parts water in every 1,000, it follows that 1,000 parts of milk will yield by evaporation only 127 parts.

**Thunder of Waterfalls.**

Dr. Tyndall, in the "Philosophical Magazine," makes the following observations on the production of bubbles in connection with the origin of the sound of agitated water:—When the smoke is projected from the lips of a tobacco-smoker, a little explosion usually accompanies the puff; but the nature of this is in a great measure dependent on the state of the lips at the time whether they be dry or moist. The sound appears to be chiefly due to the sudden bursting of the film which connects both lips. If an inflated bladder be jumped upon, it will emit an explosion as loud as a pistol-shot. Sound, to some extent always accompanies the sudden liberation of compressed air. And this fact is also exhibited in the department of a jet. If the surface of the fluid on which it falls intersects its limpid portion, the jet enters silently, and no bubbles, as before remarked, are produced. The moment, however, after the bubbles make their appearance, an audible rattle also commences, which becomes louder and louder as the mass of the jet increases. The very nature of the sound pronounces its origin to be the bursting of the bubbles; and to the same cause the rippling of streams and the sound of breakers appear to be almost exclusively due. I have examined a stream or two, and in all cases where a ripple made itself heard I have discovered bubbles. The impact of water against water is a comparatively subordinate cause, and could never of itself occasion the murmur of a brook, or the musical roar of the ocean. It is the same as regards water-falls. Were Niagara continuous and without lateral vibration, it would be as silent as a cataract of ice. It is possible, I believe, to get behind the descending water at one place; and if the attention of travellers were directed to the subject, the mass might perhaps be seen through. For in all probability it also has its "contracted sections;" after passing which it is broken into detached masses, which, plunging successively upon the air-bladders formed by their precursors, suddenly liberate their contents, and thus create the thunder of the waterfall.

**Extension of a Patent.**

On the petition of Phineas Bennet, of New York, N. Y., praying for the extension of a patent granted to him on the third day of August, 1838, for an improvement in apparatus for generating steam, for seven years from the expiration of said patent, which takes place on the third day of August, 1852.

It is ordered that the said petition be heard at the Patent Office on Monday the 26th of July, 1852 at 12 o'clock m.; and all persons are notified to appear and show cause, if any they have, why said petition ought not to be granted.

Persons opposing the extension are required to file in the Patent Office their objections, specifically set forth in writing, at least twenty days before the day of hearing; all testimony filed by either party to be used at the said hearing, must be taken and transmitted in accordance with the rules of the office, which will be furnished on application.

THOS. EW BANK, Com. of Patents.  
 Washington, 1852.

**Foucault Illustrated.**

The Springfield Republican says, that Mr. Geo. M. Dimmock, a workman in the U. S. Armory, in that city, has invented an apparatus to illustrate the pendulum experiment of M. Foucault, demonstrating the rotation of the earth upon its axis. This apparatus is an artificial globe, with an adaptation of a pendulum, which is put in vibratory motion over a dial, divided into degrees, at any required latitude of the globe.