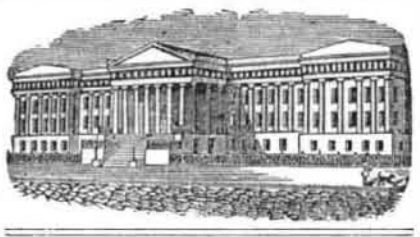

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## LIST OF PATENT CLAIMS

**Issued from the United States Patent Office**

FOR THE WEEK ENDING NOVEMBER 11, 1851.

To B. F. Adams, of Bangor, Me., for improvement in Cheese, Butter, and Bread Cutters.

I claim the arrangement of the circular revolving table and knife, the said knife being attached to the sliding shaft, and operated by means of a treadle and weighted cord and pulley, or their equivalents, so that the cheese or other article to be cut, may be placed upon the table and not removed until, by a single revolution of the wheel, and a few slight pressures of the foot upon the treadle, it is cut into as many parts as may be desired, without crumbling or waste.

To David Anthony, Sen., of Springport, N. Y., for improvement in the construction of Scythe Fastenings.

I claim the mode of adjusting the lever by rotating the ring around its own axis, by which the point of the scythe is thrown out or drawn in, as shown and described, the upper end of the lever, passing through an eye attached to the ring, the fulcrum of the lever being near the end of the snath, and the scythe attached to the lower end of the lever, as set forth.

[This is a capital improvement—we can endorse its good qualities. A farmer can set a scythe, by this improvement, in a trice.]

To B. F., Bee, of Harwich, Mass., for improvement in Hand Planes.

I claim the application to carpenters' planes and moulding tools, of a new method of confining the iron, by a metallic apparatus, acting upon the principle of the lever and cam, in combination with the set screw for adjusting the same, as described, using for the purpose the aforesaid contrivance or arrangements of parts, or any other, substantially the same, and which will produce the same effects in like manner.

To Jonathan Bean, of Montville, Me., for improvement in screens for Winnowing Machines.

I do not claim any part or portion of the gear, fans, or forms of the hopper, or shoe, as an original invention, as I am aware that all these have been in common use; I claim the arrangement of guides, and side apertures in the upper movable screen, and the lower screen attached to the shoe, and which screen may be attached to any common winnowing machine, in the manner and for the purposes described.

To Daniel Drawbaugh, of White Hill, P. O., Pa., for improvement in Stave Jointing Machines.

I claim the adjustable knife, in combination with the adjustable rest, as described, to adapt them to the jointing of staves for casks of different bilges.

To G. W. Perry, of Thompson, Ct., for improvement in Shuttle Motions of Looms.

I do not claim hanging the picker staff on a radius rod, as I am aware that it has been so hung, and by the aid of other devices, in connection, a motion parallel to the raceway has been produced, but what I claim is hanging the picker staff or staves, upon radius rods, and having two distinct radial motions, substantially as set forth, for the purpose of causing the end which operates upon the shuttle, to describe, or make a rectilinear motion parallel with the raceway, and with less power than has heretofore been done.

] This is a good improvement.]

To Joseph Steger, of Roxbury, Mass., (assignor to Wm. Mitchell), for improvement in machines for Cutting the Soles of Boots and Shoes.

I claim the mode or means described for insuring the unerring turning of the knife frame for cutting both sides of the sole, said means consisting of notched pawl, lever, and spring, operating on the journal plates of said frame, substantially as described.

To Ezekiel Booth and Ezra Ripley, of Troy, N. Y., for improvement in Car Seats.

We claim the arrangement of two levers in a cross position, so that any required height of back may be carried, and reversed from and to either side of the seat, and secure it firmly in its position, at any required angle, substantially as described.

To Alvan Clarke, of Cambridge, Mass., for improvement in Telescopes.

I claim combining the glasses or glasses and diaphrams, with a sliding or eye-piece tube, of a telescope, by means of a tube or slide, perforated through its side or sides, in such a manner as to enable a person, when the said tube is withdrawn from its enclosing tube, to obtain ready access through the openings or perforations, to the glasses or lenses, the whole being substantially in the manner and for the purposes as described.

To J. C. Flint, of Boston, Mass., for improvement in Machines for Cutting Hides.

I claim the combination of mechanism for reducing dry hides to a strip, and mechanism for cutting or removing the hair from the underside of the said strip at one continued operation, substantially in the manner as described.

To A. W. Johnson, of St. George's, Del., for improvement in Bending Felloes.

I claim the curbs, in combination with the box or its equivalent, said curbs being constructed in the manner and for the purposes substantially as described.

To Richard Kitson, of Lowell, Mass., for improvement in Card Grinders.

I claim an instrument for grinding or sharpening wool, cotton, or other cards, made with sectional card-teeth, which are so bent at the heel as to make the sharp edge more prominent than its opposite and broad edge, together with its application to the card that is to be ground in such a direction as to cause the sharp edge of the teeth of the grinder to be first presented to and enter among the teeth of the card.

To William, Wm. H. & H. J. Lewis, of New York, N. Y., for improvement in Daguerreotype Apparatus.

We claim, first, the combination of a camera box, with a cross opening, or mortise, to receive a sliding frame that carries both an object glass and the daguerreotype plate, as described.

Second, the construction and application of a sliding frame with a division to receive a frame carrying an oblong object glass, so formed as to be placed either vertically or horizontally, as described.

Third, the construction of the slide, so as to receive in the other division, a daguerreotype plate in a frame, such frame being pressed in place by springs, and held in place by blocks, taking notches in the frame, as described.

To L. D. Livermore, of Hartland, Vt., for improvement in Coupling Railroad Cars.

I claim the combination of a stiff car coupling, with the ends of a couple of cars, and with the trucks under the same, substantially in the manner set forth, by which the cars are made to guide the trucks under them, and keep them in their proper positions on the track, to wit, in such positions that a line drawn midway between and parallel with the truck axles, will be at right angles to any straight track, and also at right angles to the tangent of any curved railroad track.

To A. J. Lonsbury, of Somerville, Tenn., for improvement in Abdominal Supporters.

I claim the employment of a pubic brace of the peculiar form described, so as to fit the os pubis, and press uniformly upon the inguinal region, while the upper edge of the brace is bent forward, so as to effect no inconvenient pressure upon the abdomen of the wearer, said pubic brace being made of hammered leather, or other tenacious material, in the manner and for the purpose described.

To Levi Newcomb, Jr., of New Bedford, Mass., for improvement in Bedsteads.

I claim the manner of securing the lower bedstead to the upper one, so that it may slide underneath the upper one or be drawn out from it as described, viz., by having the clamps attached to the upper part of the foot posts of the lower bedstead, and clamps fitting in the recesses of the rails of the upper bedstead, and the rails of the lower bedstead passing through the mortise holes in the foot posts of the upper bedstead, substantially as set forth.

To Richard Rickey, of Rutland, O., for improvement in Horse Collars.

I claim connecting the sides of the breast plate by a flat joint, in combination with the levers attached to the sides of the breast plate and rising over the neck without touching the shoulders of the animal, and connected at the top, by which means the breast plate is made adjustable to the side of the horse, substantially as set forth.

To I. S. Stover, of Erwina, Pa., for improvement in Grain Kilns.

I claim the combination of the heating chamber with the two drying beds, one above and the other below, as described.

To Isaac Taylor, of New York City, for improvement in Frosting Plates of Glass.

I claim the use of a rocker, containing pebbles, sand, and water, for the purpose of frosting plates of glass, or embossed work, as above described.

DESIGN.

To S. W. Gibbs, of Albany, N. Y., (assignor to North, Harrison & Chase, of Philadelphia, Pa.), for Design for Stoves.

### Artesian Wells.

The Southern Standard contains a very interesting account of an artesian well lately bored in Columbus, Miss., by Messrs. Copeland and Evans.

The well is near the centre of the town, 100 feet above low water mark, is a little over 560 feet deep, and discharges about thirty gallons of water per minute four feet above the ground. The temperature of the water is 65° Fah., while that of the ordinary wells in the vicinity, 30 and 40 feet deep, is 62°.

The following strata were bored through during the progress of sinking the shaft. It will be of interest to our geologists.

1. Feruginous clay, sand, and water-worn silicious pebbles—50 feet.

2. Green sand, composed of fine grains of silex, chlorate of iron, mica, alumina, and a small portion of lime—160 feet. A few feet of the lower portion of this stratum contains a considerable number of small black water-worn pebbles, and also lignite.

3. Argilio—Micaceous earth—45 feet.

4. Incoherent argilaceous earth, of a light ash color, containing lignite and iron pyrites. This stratum resembles in structure pressed, dried prunes, with interstices glazed. The caving tendency of this stratum occasioned more difficulty than any other portion of the well—5 feet thick.

5. Argilio—Micaceous earth, with a small portion of fine sand—20 feet.

6. Argilio—Silicious earth, darker than the 5th, also containing lignite—13 feet.

7. Brown colored argilite, sufficiently hard, when dry, for slate pencils, interspersed with lignite—7 feet thick.

8. Fine grit, ash color, with fine particles of mica. The grit in this stratum has been used by some on razor strops, and pronounced very good—7 feet thick.

9. A continuation of the same fine grit, with alternate layers of like colored argilaceous earth, 11 feet thick.

10. Yellowish colored argilaceous earth, hard when dry—12 feet thick.

11. Brown colored argilaceous earth, difficult to bore, hard and brittle when dry—28 feet.

12. Compact green sand, resembling stratum second, 3 feet thick, and then passing into a coarse drift sand, with green particles of chlorate of iron, &c.

The most of the water in the prairies, west of Columbus is obtained in a thin stratum intervening between the green sand and indurated marl, composed of calcareous sandstone, conglomerate, loose water-worn pebbles, a whitish colored silicious rock, and lignite.

At a recent meeting of the New Jersey Historical Society, held at Newark, an interesting report on an artesian well in that place was presented.

It was commenced in October 1850, by the Newark India Rubber Company, to obtain a supply of water, and was relinquished in June, 1851. The water is now 36 feet below the surface of the earth. The entire rock through which the bore passes is of red shale. At the depth of 90 feet the auger penetrated a cavity of the rock and fell three feet, when 14 feet of water which had previously existed in the bore, passed off. The "Newark Advertiser," in speaking of the matter, says:—

"The well was commenced with a bore of 4½ inches in diameter, and continued of this size to the depth of 170 feet, when the auger broke and it was found impossible to remove it. A smaller bore of 2½ inches was then commenced so as to pass down by the side of the imbedded drill This continued on to a depth of 376 feet, when the work was abandoned, ultimate success being thought very doubtful. The committee was not able to take the temperature of the well at different depths, on account of the large quantity of water in the bore during its progress.

The chairman of the committee, Mr. Wm. Kitchen, regretted that this attempt was so soon abandoned, inasmuch as a continuance of the work might have brought to light new and interesting facts relative to the geology of this district, as well as, in all probability, ultimately realizing the objects of the boring. From geological data based upon the dip or inclination of the sand-stones, and particularly their relation to trap-rocks, it seems probable that, by penetrating the sand-stones to the igneous rocks on which they lie, abundance of water would be obtained, and that under very considerable pressure. To effect this would require a boring of probably not far from 1,000 feet in depth.

### Analysis of Atmospheric Air.

M. Lewy, to whom the Academy of Sciences in Paris entrusted a commission for the examination of atmospheric air, in New Grenada and elsewhere, has made an interesting report of his labors to that distinguished body.

"He has followed the accurate method of M. Regnault, of analysing by volumes, and so minute are his investigations, as to descend into the infinitesimal quantities of the one ten-thousandth part of a degree of the endiometer. As to France, his labors agree with those of Gay Lussac and others; that is, in volumes of oxygen, 20·80; of nitrogen, 73·20; of carbonic acid, ·004. In New Grenada, he took the mean of eleven observations at different localities, and found that in 10,000 volumes of pure atmospheric air, he had uniformly 1201·425 of oxygen, 7894·557 of nitrogen, and 4·008 of carbonic acid. These proportions are almost identical with those observed in various parts of Europe. He remarked, however, that the air of New Grenada presented once or twice a year a very remarkable increase in the proportions of carbonic acid, attended with an appreciable reduction of the oxygen; and causing a very sensible alteration in the constitution of the atmosphere.

M. Lewy ascribes this phenomenon to volcanic action, the frequent discharges of lava clearing the soil, burning up the forests and setting free large quantities of the former gas. He has found ten or twelve times the usual proportion of the acid at those times; and a corresponding absence of oxygen. To the same volcanic causes, M. Lewy lays the extraordinary development of vegetation in South America. The immense volumes of carbonic gas projected into the air, contribute, he thinks, largely to nourish the prodigious growth of tropical plants, which frequently furnish us the spectacle of a sizeable tree as a representation of what, in less genial latitudes, is represented by a lowly bush. Carbon, it is well known, constitutes one-half the composition of wood.

In examining the atmosphere at the level of the sea, M. Lewy has arrived at some curious results. In the daytime he found the air contained a little more of oxygen and carbonic acid than at night. The further he proceeded from the shore the more marked the difference became. He attempts to account for the fact by suggesting the probable action of the solar rays, which, by warming the water during the day, determine the disengagement of a portion of the gas held in solution. Air extracted from water is known to be more highly charged with oxygen and carbonic acid than the atmosphere. By an increase of carbonic acid gas, and a decrease of oxygen m the atmosphere, at certain seasons, epidemics can easily be accounted for in those countries subject to great atmospheric changes.