



Reported Officially for the Scientific American

LIST OF PATENT CLAIMS

Issued from the United States Patent Office

FOR THE WEEK ENDING MAY 11, 1852

BLIND AND SHUTTER FASTENER—By Saml. Barker, of New York City: I claim the method of securing or fastening window shutters, by having the upper portion of the pintle of the hinge of a square or other many-sided form, and the upper portion of the socket of a corresponding shape, a space being left between the socket and pintle to receive the cap, which corresponds, in shape, to the upper portion of the pintle and socket, and fits on the pintle and in the socket, securing, or fastening the shutter, as specified.

PORTABLE COT BEDSTEDS—By Wm. C. Betts, of New York City: I claim, first, the elevation in the side rails, as a substitute for the pillow, as described.

Second, I also claim the dovetails as used for attaching and detaching the legs to and from the side rails, that is to say, the dovetails entering the mortises from opposite ends of the cot frame, so that they cannot readily loosen by use.

Third, I also claim the arrangement of the right and left hand screws which unite the opposite legs at their crossings, in such a manner that the screws shall tend to tighten the joint, as the legs separate from each other, or loosen the same as they approximate.

Fourth, I claim the combination of the tense bars, having right and left screws, with the side rails of a cot bed, for the purpose of keeping the sacking bottom tense.

RAILROAD CAR SEATS—By A. B. Buell, of Westmoreland, N. Y.: I claim constructing the backs of railroad car seats, with outer sliding backs fitting in slides, and held by springs, for the purpose of elevation above the ordinary back, or depression below it, as set forth.

MEAT CUTTERS—By Wm. Burns, of Rome, O.: I do not claim as new any of these parts, separately considered, or irrespective of the manner or arrangement in which I propose, in combination, to apply them for the purposes, and to produce the advantages specified. But I claim arranging, in separate concaves, maintaining vertical positions, and uniting with each other, two cylinders, the one above the other, the upper one operating to partially mince the meat and deliver it upon the lower cylinder, revolving at a greater speed, for reducing it to the required fineness, as described.

MEASURING FAUCETS—Jacob R. Byler and Geo. W. Sensenich of Beartown, Pa.: We claim so constructing a faucet for measuring and drawing molasses, honey, oil, tar, or other liquids, as that they shall always stand charged with a measured quantity of the liquid, which may be forced out of the faucet instantaneously, however thick or sluggish it may be, when the same is accomplished by means substantially as described.

BRUSHES—By A. R. Davis, of East Cambridge, Mass.: I claim the described improvement in filling the holes of a brush block with bristles, the same consisting in the employment of a frame to contain said bristles in mass, and hold them in the brush blocks, and in the direction of their respective holes in the block, in combination with giving to such block and frame, such movements, rappings, jarrings, or blows, as to cause the bristles, by the force of gravity, or concussion, to pass into and fill the holes in the block, as stated.

COOKING BOILERS—By L. S. De Bibory, of Baltimore, Md.: I claim the application of the small cap to the cooking pot, as described.

APPARATUS FOR SOLDERING IN A VACUUM—By J. B. & J. R. Horne, of Xenia, O.: We claim the application to the purpose of soldering in vacuum, of a hollow bent tube for the reception of a heater, the said tube being closed at the lower end, and provided with a screw thread at its upper end, fitting tightly, within a screw-neck or collar, upon the glass receiver of an ordinary air pump, or other suitable instrument for producing a vacuum, the bent form of the tube bringing it to bear, during its rotation, upon the perimeter of the circular disc which closes the aperture.

BLOCKS FOR PRINTING OIL CLOTHS—By James Jenkins of Elizabethtown, N. J.: I claim the movable gauge, in combination with the adjustable point, or its equivalent, to compensate for the contraction and expansion of the pattern block, in the manner and for the purpose substantially as described.

PLATFORM SCALES—By Robt. Newell, of Lebanon, Ind.: I claim the rod I, and the rod and socket and sector, or their equivalents, in combination with the revolving head and face (or graduated plate) and hand or index, to show at once, and in any required direction, the weight of the article weighed.

LEAD-PIPE MACHINERY—By Benj. Tatham, of New York City: I am aware that the invention of this machinery describes the core as being forced to the centre of the die, and retained there by the pressure of the issuing pipe; therefore I do not claim, broadly, having the core so that it shall not be affected by the vibrations of the ram.

What I claim is connecting the core with the ram, by means of a universal joint, or its equivalent, substantially as specified, so that the core shall be retracted with the ram, in combination with the cylinder and die, of a machine for making pipe by pressure from lead or other soft metal, run into the cylinder, and on to the said core, in the molten state, substantially as specified, whereby the core is retracted with the ram and held in position, while the charge is poured in, and during the operation of forming the pipe, the vibrations of the ram do not practically affect the central position of the core in the dies, as specified.

TABLES—By T. H. Taylor, of Fayetteville, N. Y.: I claim, first, the employment of flies, levers, or their equivalents, in combination with the spiral springs, or their equivalents, the whole being constructed, arranged, and operating in the manner set forth.

Second, the employment, in the manner substantially as described, of the levers, or their equivalents, in combination with the flies, for the purpose of lowering the table leaves when desired.

[See engravings on page 164, present volume.]

GOLD BEATING MACHINERY—By Wm. Vine, of Hartford, Ct.: I claim the double action adjustable, differential cams, or their equivalent, combined with the sliding rod and pivoted cylinder, in connection with other parts of gold beating machinery, substantially in the manner and for the purpose as set forth and described.

MASH TUNS—By Robt. Wicks & James Faulkner, Jr., of Williamsburgh, N. Y.: We claim the completely enveloping the mash tun with water, or sufficiently so to produce the desired rapidity, in cooling the mash.

IMPLEMENT FOR CUTTING BUTTER FROM FIRKINS—By Nathl. Woodbury, of Salem, Mass.: I claim the knife, operated by means of the levers, or their equivalents, in combination with the piston, and the box, the knife, levers and piston being constructed, arranged and operated in the manner and for the purpose substantially as described.

RE-ISSUE.

APPARATUS FOR PARTI-COLORING YARN—By A. Smith, of West Farms, N. Y. Patented originally June 18, 1850: I claim the method, substantially as specified, of parti-coloring yarns that have been reeled, by direct and free immersion, by means of frames carrying the reeled frames and combined with the vat containing the dyeing liquor, by means of machinery adapted to let down and draw up the said frame, and measure the extent of immersion, substantially as set forth.

I also claim connecting one or both of the reels, in each frame, by means of slides, to admit of removing the reel from contact with the yarns, whilst in the process of dyeing, substantially as specified.

DESIGNS.

COOKING STOVES—By Apollon Richmond, of Providence, R. I., (assignor to A. C. Barstow & Co.)

COOKING STOVE—By Hosea H. Huntley, (assignor to David T. Woodrow), of Cincinnati, O.

[In the above brief list of patents, granted last week, we feel a pride in stating that six out of the number were secured through this office.]

The Omnibus.

The omnibus is the perfection of clumsiness in every way; and considering all things, it is amazing that so little has been done to relieve it of its lumbering weight and remedy its petty inconveniences. Its errors may be thus enumerated:—1st. It is double the weight it need be. 2nd. The "vis-a-vis" fashion of seating passengers wastes room. 3rd. It chokes by confined air in winter, and in summer it affords the worst circulation of air, with the best system of passive martyrdom. 4th. The unseparated seats fosters rudeness. 5th. The huge wheels and general contour are of a barbarous age.

This is a catalogue of points to spur inventors. Now, as we dislike carping, and have charged faults, we will suggest some remedies.

The Irish outside "Jaunting Car," that is, (or was in use in Dublin some years ago), presents to our mind the basis of a sound conception of the perfection of a street carriage for this climate. The axle is short, the wheels are low and play beneath the elevated seats, which place the passengers "dos-a-dos" facing the side walks. The step which forms the foot rest is on a level with the curbstone, and extends, of course, along the whole length of the car on each side; there is no top. In this climate covering from the sunshine is necessary as well as from rain during six months of the year; but then light and picturesque awnings would entirely answer this purpose, with such extra provision as may be suggested in case of rain. Why shall we for ever drag about so stupid an over-weight, and so suffocating a dish cover, to serve us only on occasions when rain falls? Each seat can readily be made separate in this way, and kept closed by a light sheet-iron ornamented apron, to be opened by a spring from the coachman's box, and this movement might be used with a neat machine to register the number of passengers which daily may ride in the said carriage. The nuisance of a bundle or basket would, in this way, be confined to its owner. Gentleman and ladies of the heavy weights would have the pleasure of tight lacing themselves, instead of squeezing their neighbors; in short, a new omnibus, constructed after some of these suggestions, would be like universal suffrage and vote by ballot in England. We need say no more; the hints given are surely enough for any man, and for you, Messrs. Yankee Inventors, it will surely be an easy matter to place the clumsy omnibus "hors de combat," and construct a tasty, convenient, and good new public street carriage, and about a patent, you need have no fears of that.

ANTHRAX.

Philadelphia.

Surface Coal.

A great coal mine has been discovered in Kentucky, seven miles back of Cloverpark. The coal is found on surface veins. The district of land was first sold for \$5 per acre, some years since, and it was subsequently

purchased by a speculator for the sum of \$10,000. He has since sold out to the present owners for the handsome sum of \$100,000. The mines have been worked but very little, and are almost inexhaustible. The coal burns like gas, and imparts great heat, and is accompanied by no dirt whatever. It will as readily ignite as a candle, and the steamboat men use it instead of pine wood for torches.

Something New and Important, if True.

We extract the following from a letter from Baltimore to the Washington Telegraph:—

A young man named Force has been residing partly in this city and partly in Washington for some months past. He is originally from St. Louis, but more recently from Texas. I learn, upon what may be deemed good authority, that he is about to become distinguished as a mechanical genius. He is said to have invented and patented a new motive power, which bids fair to supersede both steam and water. It is stated that a model of the machine is already in existence, and that it has been patented with an injunction of secrecy for a certain time. So cautious has he been to avoid infringement, that he had one part of the machinery necessary to the completion of the engine made in New Orleans, another part in Baltimore, another part in Philadelphia, and another in New York. The separate parts thus constructed were, in due time, collected in Baltimore, and put together by the inventor himself in a room into which no person has been permitted to enter.

It is asserted that the machine worked to the full satisfaction, and beyond the expectations of those most deeply interested in it. I have had an introduction to, and some conversation with, the inventor. The only idea I could glean in regard to his invention was, that it brought the atmosphere into use as a powerful motive agent, amounting almost to independent self-action. It is asserted—and the truth of the assertion, of course, will be established or falsified when the invention is made public—that this new momentum can be increased as to propel the largest ocean steamers, or brought down and suited to the delicate movement of a watch. Nothing will be found to bear the slightest comparison to it in point of utility and completeness as a motive power.

The inventor is quite a young man, with good common sense and much shrewdness, though of moderate education. It is his purpose, I am further informed, to proceed to Europe and obtain patents there; and that he does not design having the patent or principle of his invention made public here until time has been allowed to secure it from piracy in other countries. Some three or four distinguished gentlemen—men of wealth and influence—are peculiarly interested with him in the patent. One or more of them design accompanying him to Europe. They set sail probably in June next, and perhaps a month or six weeks subsequent to their sailing the patent or model will be exhibited in the United States. I can only say if the invention proves to be what is claimed for it, the world, up to this age has never seen its equal. We shall await patiently the wonderful development; and in due time award the distinguished author full credit.

[The above we copy from the United States Gazette, which sensibly does not endorse anything about this wonderful invention. It will turn out like a great number of other blowing inventions which, within two years, have been heralded with loud trumpet-tongue.—About the patenting of it, nobody believes that who has any acquaintance with these things. The idea of bringing "the atmosphere" into use as a powerful motive agent, amounting almost to independent self-action" is very good but nothing new. A self regulating wind-mill, for example, is a powerful machine according to its size and the velocity of the wind. Air engines are nothing new, the hot air engine of Ericsson is not new in principle, for Stirling patented one in 1840, and has had it in operation for a number of years, and in 1846, in a paper read before the London Institution of Civil Engineers, he claimed to have saved two-thirds of the fuel usually expended on steam engines, by using the heated air over and over again, by using two vessels,

one at a high and the other at a low temperature, as described on pages 134 and 142, Vol. 3, Scientific American.

We cannot say, with the concluding words of the foregoing extract that "we will await patiently the wonderful development, and award the distinguished author due credit." We have no patience with such trumpeting, and we notice it to prevent, if possible, Hilleotype and Remington Bridge excitements.

Vegetable Origin of Coal.

Geologists are now, from recent discoveries and observation, in a tolerably safe position to prove not only the vegetable origin of coal, but of the comparative geological period at which the several deposits were formed. The theory of the vegetable origin of coal is founded, first, on the regular mineralogical gradation, traceable from bog, wood, or peat, through lignite and common bituminous coal to anthracite, on evidence showing that dead vegetable matter, under proper conditions, undergoes consecutive chemical changes, which convert it successively into these several descriptions of coal, and on the constant presence of vegetable remains in rocks of the carboniferous period, and the vegetable structure of the coal itself. In peat there is the organic structure as perfect as in living wood; in lignite the woody fibre is still marked, but less obvious, while bituminous coal obeys the law of true rock or mineral cleavage, in which no vestige of vegetation is visible to the naked eye; but let a thin slice be placed under the microscope, and the most beautiful vegetable structure is apparent. Trees have been found in tertiary beds, having one portion in the state of bog-wood, and another in that of true coal; and in the north of England the compressed stems of trees, of enormous length, are exposed in all positions; gigantic reed-like forms, in a crushed state, are profusely imbedded in the solid rocks; ferns, with their delicate nerves most beautifully preserved, are to be seen in countless numbers, while here and there may be observed the under part of gigantic roots, their branches radiating to a distance of 60 feet from the parent stem, and their surfaces thickly studded with long fibres, shooting in all directions through the now consolidated mud. With respect to the periods of coal deposit, they are now generally considered to have been widely various—that of Oporto is supposed to have been formed at the commencement of the Silurian division of the primary period—that of Great Britain at its close. The coal of Virginia, U. S., belongs to the middle division of the secondary period, while those of Piedmont, Tuscany, and other parts of the south of Europe, are undoubtedly a deposit of the tertiary age.

[The above is from a correspondent of the London Mining and Railroad Journal, and it enunciates what nobody contradicts, respecting the materials of which coal is composed, or rather was composed; but, then, is it not a more difficult affair to account for these vegetables. It may as justly be said, freestone is of vegetable origin, if we take the appearance of certain stones for proof positive of its primary state. We have seen, and so have thousands of others, "stone trees," with their branches and bark as perfect as when they stood erect and braved the driving storm.—There are many peat bogs in England which have been formed since the Romans were in that country; some of them are very deep, and produce hard black peat. These can easily be converted into coal by heat and compression. In some parts of our country we have coal near the surface of the ground, and there are some kinds apparently half coal and half peat. With respect to certain periods and formations of those periods, it is very unsatisfactory, excepting for classification. We have certain formations in different parts of the world, but these formations are but simple facts which have to be accounted for yet themselves.

Philostratus relates that the knights of Lybia, at a certain time, fought upon elephants, some of which had a tower engraven on their teeth; and when they were separated by the night, such as had the tower were beaten, and fled to Mount Atlas; and that Juba, King of Lybia, 400 years after, took one of them, which had this ensign so lively engraven as if it had been done lately.