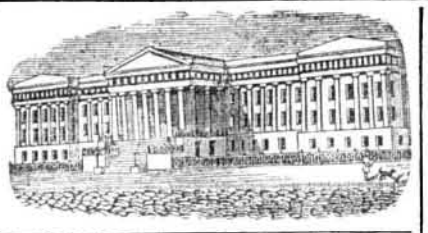

☞Reported expressly for the Scientific American, from the Patent Office Records. Patentees will find it for their interest to have their inventions illustrated in the Scientific American, as it has by far a larger circulation than anyother journal of its class in America, and is the only source to which the public are accustomed to refer for the latest improvements. No char is made except for the execution of the engravings, which belong to the patentee after publication.

LIST OF PATENT CLAIMS
Issued from the United States Patent Office.
FOR THE WEEK ENDING APRIL 8, 1851.

To Pearson Crosby, of Fredonia, N. Y., for improvement in Sawing Machines.

I claim making the circular saw with both faces convex, in the manner and for the purpose substantially as specified, when this is combined with the guide, substantially as specified, for spreading apart the plank to prevent the binding of the saw, as specified.

To Lewis J. Mason, of Franklinville, N. Y., for improvement in fastening down table leaves.

I claim the combination of devices, by means of which table-tops of different forms and dimensions can be readily secured to and disconnected from the same frame, as herein set forth.

To I. Z. A. Wagner, of Philadelphia, Pa., for improvement in Brick Presses.

I claim the combination of the mould wheel with the grooved and smooth pressure roller, substantially as herein described; the grooved roller gauging and partially compressing the clay into the moulds, and forming a projecting band of clay, which is subsequently compressed into the moulds by the smooth pressure roller.

I also claim the grooves in the mould wheel in combination with the flanges of a hopper, which is supported on the frame of the machine, independently of the mould wheel; by which arrangement the clay is prevented from escaping laterally and working in between the teeth of the driving wheels; hence, the latter can be placed near to the moulds, and the machine thus made more compact, while, at the same time, the danger of breaking is diminished.

I also claim detaching the bricks from the pistons of the mould wheel, by means of the tappets and levers, as herein set forth.

To L. Faqui & H. C. Hayman, of Cincinnati, Ohio, for improvement in apparatus for bolting flour.

We do not claim the broad principle of bolting meal by a air blast, as this has been imperfectly done before, but what we do claim is the application of a blast cylinder, with spiral issues, as described, to the process of bolting flour or other pulverized material, by means of which, during a continuous blast, the meal is consecutively thrown against the bolting cloth, and so much as is not passed through at once, is given an interval of time to fall from the cloth, and leave open the meshes; and is thus, as it were, re-fed to the impulse of the blast from each succeeding issue; the intermittent action, at the same time, causing eddies that loosen, and, as it were, rip up the bran and flour from the cloth, separate the bran from the flour, and twirl the particles of bran in such a manner as to leave the flour free to pass through, while the bran, from the twirl thus given it, is caused to present its broadest surface to the bolting cloth, the specking of the flour being thereby prevented and avoided, the several parts being arranged substantially in the manner and for the purpose described.

We also claim the insertion of a set of beaters, at a suitable distance down the bolting cloth and blast cylinder, which, during the bolting process, shall interrupt the same, at a time when the bran requires beating, in order to loosen the flour from it, preparatory to the further continuance of the bolting process, substantially in the manner and for the purpose described.

We also claim the chamber by means of which the light flour carried up by the escape of the blast is re-gathered and returned to the usual gathering chamber, substantially in the manner and for the purpose described.

To E. S. Holkins, of Painesville, Ohio, for improved Saw-set.

I claim, first, supporting the lever by which motion is given to the jaws, by means of an adjustable stirrup, constructed substantially as described, whereby said stirrup serves as a gauge in addition to performing its ordinary duties.

Second, I claim the arrangement of the jaws constructed of one bent piece of metal, with the lever and stirrup, the handle of said lever projecting backwards towards the rounded part of the jaws, the whole being constructed substantially as described.

To T. J. Sloan, of New York, N. Y., for apparatus for setting up Ten Pins.

I claim elevating the pins of a bowling alley, by means of a set of elevating sockets, operated from the head of the table, when this is combined with any well-known device, or devices, which will permit the pins to fall, and sustain them in a vertical position after they are elevated, substantially as described.

To A. D. Crane, of Newark, N. J., for improvement in Horse Powers.

I claim the manner of arranging and connecting the whiffle-tree and brake, so that when the horse is drawing, the brake is off the wheel, or pulley, and when not, is on, and acting as a governor, as described, for the purposes set forth.

To Wm. Todd, of Stamford, Conn., (assignor to Chas. Atwood & Geo. Kellogg, of Derby, Conn.,) for tool for making Jack-Chains.

I claim the combination of the stud pins with the bending stud and holding dog, arranged and acting substantially as described.

To Celia R. P. Foster, of Canandaigua, N. Y., for improvement in Ladies' Work Tables.

I claim the mounting of the upper leaf and disc, with the drawers on the rotary standard, thus raising or lowering the whole, to suit different persons, by a screw.

I also claim the rotary disc with drawers hung thereon by the screw supported by the pin which can turn round the standard, independent of the leaf or standard, and raised or lowered as herein set forth.

To R. T. Merrill, of Bloomfield, Mich., for improvement in Grain Separators and Fans.

I claim constructing the elevator with double troughs, as described, for the purpose of preventing the grain from falling through between the cells.

I moreover claim the combination of the elevator, wind channel, and plate valve, with a grain threshing and winnowing machine, the former being constructed and arranged as herein described.

To Hiram Strait, of Covington, Ky., for improved Saw-set.

I claim the adjustable double bevelled slide saw-rest, constructed and used substantially as herein described, by means of which, its bevelled bed, the tooth-rest, upper jaw and punch, saws of all kinds can be firmly held, and their teeth be either set in V form, shouldered in U form, or be both shouldered and set to any amount required, to insure any degree of smoothness or roughness in sawing, whether their points are sharp or rounded.

To J. L. Booth, of Cuyahoga Falls, Ohio, for improvement in Winnowing Machines.

I claim the blast passages arranged and controlled by the shutter, in the manner and for the purposes substantially as set forth.

To R. K. Paine, of Cincinnati, Ohio, for improvement in Cooking Stoves.

I claim the three air passages between the fire back and the upper oven, the said passages receiving external air at the sides of the stove, and discharging it into the back flue, in combination with the damper and flues (seven) substantially as herein described, for the purpose of equalizing and regulating the heat to all parts of the ovens.

To Oliver Clark, of Medina, Ohio, for improvement in Scythe Fastenings.

I claim, first, making the shank of curved or arch form, longitudinally, as described, which enables it to be fitted to the snath, so as it may be set in or out, by giving it a slight motion in a curved direction.

Second, the mode of securing the shank so as to admit of the edge of the blade being set up or down, by making the cavity in the projection, through which the shank passes, widest at the back, and making the back edge of the shank and the inner side of the tightening key, of corresponding arch form transverely, so that the shank may be held secure in any position.

DESIGNS.

To Seth Williams, Jr., of Nashua, N. H., (assignor to Williams, Bird & Co., of North Chelmsford, Mass., Design for Stoves.

To S. W. Gibbs, of Albany, N. Y., (assignor to Jagger, Treadwell & Perry of Albany, for Design for Stoves.

For the Scientific American.

Gas Light.

The author of "Practical remarks on illuminating gas" in his preliminary statements says "that every effect witnessed can be traced to its own legitimate cause" If he means that all effects can or will be eventually traced to their own legitimate causes, I would raise no point of issue, but knowing as I do that the "remarks" are written for a certain effect in a certain quarter, I take the liberty to assume that the word *can* is used by way of intensity, and in the present tense, or in other words the force of the sentence is as follows: "All the effects that gas engineers and chemists witness *can* by them be traced to their own legitimate causes". The admission of this proposition paves the way for the following converse: "All effects witnessed by gas engineers and chemists which they cannot trace to legitimate causes are humbug." The whole article under consideration is written for the purpose of impressing this latter conclusion on the minds of a certain community in which an important trial, involving great pecuniary interests, is about to take place. The ostensible object of the article is the illuminating of the public mind on gas matters, while the real object is, unfortunately for the author's design, made apparent in the remarks on *new* and *false* lights. Having now made *my* preliminary remarks, I would enquire of J. B. B. if he *can* trace the effect of light and heat in the solar ray up to its own legitimate cause,—can he trace the various effects of electrical action up to their own true causes,—does he not know that in the chemical world there are so many effects witnessed whose causes have not, nor cannot as yet be traced, that a word has been coined to designate such inexplicable effects? J. B. B. assumes "that certain atomic combinations of carbon and hydrogen are necessary to the production of good light, and that carbon is the base of all illuminating gases, its richness and value being wholly dependent on it." I cannot permit this assumption, carbon is no more, nor so much the basis of illuminating flame as hydrogen. It simply forms one of a number of elements in *arbitrary* combination, the combination as a *whole* acting on the great luminiferous and true basis of artificial light—which is oxygen. Intense light can be produced in several ways, without the presence of carbon, but with the exception of the electric spark, no light can be made without either hydrogen or oxygen being present. Carbon therefore *is* not the basis of all illuminating gases.

A gas of higher illuminating power by 10, than oil gas, can be made by passing a cold stream of nascent hydrogen through turpentine. If the illuminating property was due to the carbon in the turpentine, some 40 ounces of the turpentine would be consumed by the passage of an ounce of hydrogen, but accurate experiments have proven that the passage of 10,000 ounces would not consume 40 ounces of turpentine. This single experiment is conclusive that "carbon is not essentially, but arbitrarily necessary to the production of luminiferous flame." By the authority of this unanswerable demonstration I deny the correctness of any remarks that J. B. B. may see fit to base on his assumed position.

H. M. Paine.

(For the Scientific American.)

Earthenware Pipes and Machinery.

Having seen in your truly valuable paper notices of pipes for conveying water, gas, &c., such as iron lined with glass, gutta percha, &c., I beg leave to say, that Messrs. Hill, Foster & Co., of this place, are manufacturing pipes of stone ware, the inside of which is a perfect glass, composed of nothing but clay as it is found at Albany, N. Y., commonly known as "Albany Slip." This clay is mixed with water to the consistence of whitewash, then, with a force pump, it is dashed on the inside of the dry pipe—thus coating the stone ware with a clay the most easily melted of any known in the States; so, when the stone or fire clay is by heat brought to a perfect stone body, the Albany clay is a fine dark colored glass: thus forming an article that cannot be affected by gas, water, or Old Time himself. Well might Commissioner Ewbank say that the water-works of Jerusalem are alone sufficient to have immortalized Solomon:—the city is still watered through ten-inch earthen pipes, all right, and performing the work he intended they should until the earth was rent asunder, and water ceased to flow. By the use of Messrs. Merrill's patent machinery this pipe is made remarkably cheap, fast, strong, and perfect, less than one half the cost of cast iron of the same calibre. After the ditch is ready, with good Roman cement, a man will putdown from ten to twenty rods per day; it will stand one-third the pressure of cast-iron of the same thickness, and strength can be added according to the pressure it is required to resist. C. J. Merrill.

Middlebury, March 24, 1851.

A Curious Rudder—Necessity the Mother of Invention.

The ship Warren, which recently arrived in this city from Glasgow, Scotland, after the long and dangerous passage of more than 100 days, in which she sustained much injury and lost her rudder, had one constructed by her captain, John G. Lauton, which has been an object of curiosity and examination to officers of the Navy and of the Marine Insurance Company. The rudder consists of hemp cable spliced together and planked across for stiffening, secured to the sternpost by three chain bridles on each side, with hausers leading forward; also, a quantity of pig iron along its length, to prevent the sternpost from chafing the hemp rudder, and to prevent its floating. As a preventive to its being chafed asunder, small blocks of wood were attached to the hemp guys. The stock of the rudder is necessarily bulky, but not to such an extent as to remove all wonder at its effective strength. This rudder, begun, completed, and fitted to its place in twelve days, storms continuing throughout, was just being put into use, when a London bark spoke and offered assistance to the Warren, but so well did the new rudder work, and so satisfied was Captain Lauton of its efficiency, that the proffer was not accepted. This was in latitude 42 degrees 15 minutes, longitude 24 degrees 20 minutes. From this position, with a new rudder and a new top-mast—the last requiring an almost equal amount of nautical ingenuity, the Warren has come directly into port—saving to her owners and underwriters $15,000 by not turning back.

On hearing about this rudder, a friend of ours remarked, "if the Helena Sloman had either a Yankee or Scotch Captain, she would have been brought safe into port." If she had one like Captain Lauton, she undoubtedly would.

Patent Cases.

Before Judge Nelson, at the April Term, 1851, U. S. Circuit Court, in this city, suit for infringement of a patent in machine for Cutting Crackers; W. R. Nevins, patentee and plaintiff; H. & J. McCollum, defendants. The jury was out all last Friday night, and came in on Saturday morning, stating they could not agree: there were three who stood for defendants; they were discharged. Stoughton and Keller, attorneys, for plaintiff; Gifford for defendants.

The reward of $10,000 offered by the Legislature of Massachusetts for the discovery of a cure for the potato rot has been claimed by Mr. Joshua F. Hatch, of Dorchester. His remedy consists of ground charcoal mixed with sulphate of lime.

For the quarter ending March 31st, 1851, 6,409,171 letters passed through the New York Post Office.