

the side of the seat, and with braces attached and jointed to permit its being folded about the seat. The Kelley seat is composed of two leaves upholstered and connected at one edge by a hinge joint, so as to hold the back when open and allow it to be folded upon the top of the seat. The hinged edges are rabbeted so that the back when open bears against the seat proper, and prevents the seat board from splitting. Price suspends every alternate board in the ordinary circus seat by a stirrup of metal fixed below the stringers for a foot rest. He is thus enabled to bring his seat boards nearer together, and accommodate more spectators with no inconvenience. The knees and feet of the person when seated, being below the seat boards, do not interfere with those seated in front.

Kelley uses notched stringers and raises his seat boards so that they have the appearance of a high bench, upon which he puts his chair seats, and then uses for a foot rest every alternate board on the top of the stringers, as in the old and ordinary circus seats. When the seat board is raised, the board in front used as a foot rest falls below the back of the seat immediately in front of it, and the persons seated do not interfere with those in front. The security and comfort of the spectators are attained by each, and the mechanism permits the seats to be packed in a small compass for transportation, and rapidly and easily adjusted, but the arrangement in each is different. The only device used by Kelley not found in the old and ordinary circus seat is the upholstered chair seat and back, and the metal strap or clamp fastened to the stringers which holds the seat board in position. Price describes this strap in his patents and claims it as new. The testimony of the mechanics and architects is, however, that this mode of securing boards or underlying axles by a clamp or clevis in a firm and fixed position is a common and ordinary device, and "is on general principle of holding stairs or steps in their place and securing windlasses," etc.

The complainant, therefore, cannot maintain his suit on account of the use of this device, and as defendant constructs substantially the ordinary circus seat, which is old and common, and upon every alternate board of which, when elevated, he puts a chair seat which is not an infringement, his bill of complaint must fail.

It is unnecessary then to examine the other issues raised by the pleadings. Decree will be entered dismissing the bill of complaint.

Davis O'Brien Wilson, for complainant
Palmer & Bell, for defendant.

United States Circuit Court—Eastern District of Pennsylvania.

PATENT TOBACCO STAMP.—LORILLARD & CO. VS. McDOWELL & CO.

[In equity.—Before McKenna, C. J.—Decided February 24, 1877.]

Charles Seidler's reissued patent of October 24, 1876, construed to embrace the impressment of a hard or metallic label upon either the inner or outer face of a plug of tobacco.

An inventor is supposed to describe in his patent the best mode of practicing his invention, but is not necessarily limited to the precise construction shown, so as to exclude a method differing from it only in a single detail, but producing the same result.

A reissued patent is not void simply because it contains an expanded claim. The inadvertence on the part of the inventor in not making such claim in his original patent is conclusively determined by the Commissioner of Patents in granting the reissue.

McKenna, C. J.:—This is a motion for an interlocutory injunction, to restrain infringement of the patent set up in the complainant's bill. An original patent was granted to Charles Seidler on the 13th of January, 1875, which was surrendered and reissued to him October 24, 1876. The invention is thus described:

I have discovered and successfully developed in practice a means of marking and distinguishing tobacco in plugs. I prepare labels, or distinguishing pieces of separate material, and impress them into the body of the plugs, one label into each plug, preferably putting the label under the outside wrapper, and giving it a character by raised letters or analogous devices, which is recognizable through the flexible covering. The material of which these labels are composed is preferably sheet iron tinned, cut into a circular form, and having points or prongs bent backward from their edges, and with raised or sunken letters or marks upon their upper face, to indicate the quality, origin, or trademark. Before the plug of tobacco is subjected to its final pressure, one of these labels is placed upon it in proper position, and, by powerful pressure, the prongs of the label are sunk into the tobacco, so that its face is about flush with the outer surface of the plug, and adheres firmly to it. An outer leaf of properly dampened tobacco is then wrapped around the plug, which is subjected to a powerful pressure, and the label is seen beneath this wrapper, and is rendered thereby difficult of removal.

The invention is therefore claimed under five heads, the first and third of which are:

1. A plug of tobacco having a hard label pressed into one of its faces, as specified.

3. A plug of tobacco having letters or other decorative and distinguishing marks produced on a hard metallic surface, and pressed as specified.

These claims the respondents are alleged to have infringed, and construing them, as I think they must be construed, to indicate the impressment of a hard or metallic label upon either the inner or outer face of a plug of tobacco, the fact of infringement is clearly made out, both by the affidavits read in support of the motion, and by an inspection of the tobacco manufactured and sold by the respondents.

This construction of the patent has been very earnestly contested, upon the ground that the specification describes only the mode of applying the label to the plug underneath the outer covering, and that the words "as specified," limit the scope of the claims to that particular mode, but the patentee must be understood as merely describing what he regards as the best mode of practicing his invention, as the law requires him to do, and not as excluding a method different from it only in a single detail, which produces the same result, and is distinctly within its object. He claims to have discovered a new method of identifying tobacco, which consists in the attachment of a hard label to each plug by pressing it into the points or prongs which project from the under surface of the label, and thus the fundamental object of his invention is fully effectuated. When this is done the outside wrapper is applied; but the label is thus placed underneath the wrapper, not as auxiliary in any way to the specific office of the label, but avowedly only to render it more difficult of removal.

It is obvious then that to dispense with this additional safeguard, and to apply the label outside of the wrapper, does not differentiate the devices, nor does it vary the method of attaching them to the plug in any essential degree.

Of the objections to the validity of the patent but little need be said at this stage of the case.

The first of these is to the novelty of the invention, or rather that it is a double use of an old device. But it is not shown to have been used for any purpose analogous to that contemplated by the patentee, or even remotely suggestive of such use.

It was the result of considerable thought, and of careful and repeated experiments, and supplied a perfect means of distinguishing the quality and origin of plug tobacco, which had not before been furnished to either the manufacturer or consumer. Nor does the denial of its patentability seem to me to have any firmer foothold.

Simple as it is, it nevertheless involved reflection and experiment to bring it to practical maturity, and its evident utility, indicated by its prompt displacement of other identifying devices, and its very extensive use, even by the respondents, strongly attests its patentable merit.

The remaining objection, that the reissue is void, as not being for the same invention described in the original patent, is clearly untenable. The drawings in both are the same, and the specifications of both are substantially the same. They both describe, as the invention, a hard or metallic label applied to a plug of tobacco before it is subjected to its final pressure, with characters impressed upon it indicating its quality, origin, or trademark; while in the original patent the claim is limited to tobacco, to which the label is applied underneath the wrapper. To remedy this restriction, inadvertently imposed, as the Commissioner of Patents has conclusively found, the reissue was properly granted with an expanded claim, to secure to the patentee the full benefit of the invention described, but not claimed in the original.

The motion for a preliminary injunction must, therefore, be allowed.

George Harding, for plaintiff.
Leonard Meyers, for defendant.

Supreme Court of the United States.

CLOTH MARKER FOR SEWING MACHINE.—HENRY W. FULLER AND ISAAC W. BARNUM APPELLANTS, VS. ENOCH S. YENTZER AND WALTER SCATES.

[Appeal from the Circuit Court of the United States for the Northern District of Illinois.]

A patent will not be sustained if the claim is for a result, a principle, an idea, or any other mere abstraction.

Where a new combination of old elements, producing new and useful results, is patented, it is the established rule that the invention, if any, within the meaning of the patent act, consists in the means or apparatus by which the result is obtained, and not merely in the mode of operation independent of the mechanical devices employed.

Where the claim immediately follows the description of the invention, it may be construed in connection with the explanations given in the description, and if the claim contains words referring back to the specification it cannot properly be construed in any other way.

It being understood that a result is not patentable, claims which read "forming one, two, or more creases in cloth, by means of, etc.," and "marking a line on the surface of cloth or other material, sewed in a sewing machine, by means of, etc.," construed to be for the described apparatus for producing the results named.

Where the invention is embodied in a machine, the question of infringement is best determined by a comparison of the machine or apparatus constructed or used by the respondent with the mechanism described in the specification of complainant's patent.

Combinations consisting of old elements are not the same when none of the devices employed in one can be substituted for those in the other, so

as to render the apparatus operative to effect the described result without reconstruction and invention.

A patent may be granted for a new combination of old elements or ingredients if it produces a new and useful result; but in such case the invention consists merely in the new combination, and the patent for it is not infringed by a substantially different combination, even though it includes the exact same elements or ingredients.

The rights of a patentee for a mere combination of old ingredients are not infringed unless it appears that the alleged infringer made, used, or sold the entire combination.

The substitution of a known equivalent for one of the ingredients of a patented invention is not a good defence for an infringer; but if the ingredient was a new one, or performed a substantially different function, or was not known at the date of the patent as a proper substitute for the one omitted, there is no infringement.

Decree confirmed, dismissing the complaint.

Recent American and Foreign Patents.

Notice to Patentees.

Inventors who are desirous of disposing of their patents would find it greatly to their advantage to have them illustrated in the SCIENTIFIC AMERICAN. We are prepared to get up first-class WOOD ENGRAVINGS of inventions of merit, and publish them in the SCIENTIFIC AMERICAN on very reasonable terms.

We shall be pleased to make estimates as to cost of engravings on receipt of photographs, sketches, or copies of patents. After publication, the cuts become the property of the person ordering them, and will be found of value for circulars and for publication in other papers.

NEW MECHANICAL AND ENGINEERING INVENTIONS.

IMPROVED DRAFT REGULATOR.

Thomas Baker, Albany, N. Y.—The object of this invention is to enable the fireman to control his fire, so that the heat, after the fire is fully burning, may be prevented from passing off with the products of combustion to so great an extent as it otherwise would. The invention consists in the combination of the open-bottomed case, the damper, bar, and chain, the weight and chain, the pulleys and shaft, and the chain, guard, and point with each other and with the flue of a furnace. By pulling upon the chain the damper can be raised to any desired extent, and can be secured in place, when adjusted, by passing a link of the said chain over a pin attached to the forward end of the guard. By counting the links of the chain drawn from the forward end of the guard, the fireman can adjust the damper in any desired position without leaving the front of the furnace. A steam gauge is attached to the front of the boiler, so that the fireman can always see what the steam pressure is, and can regulate the damper as required.

IMPROVED DEVICE FOR CONVERTING MOTION.

Edwin Long and Louis E. Lyon, Iowa City, Iowa.—This invention relates to an improved device for converting a reciprocating into a rotary motion, and is more particularly applicable to treadles for driving light running machinery in which a number of revolutions for the flywheel are desired for each movement of the treadle. The improvement consists in a snatch block loosely connected with a reciprocating lever or bar, and having a hole or throat through the same through which one side of a band passes; which band is stretched about a driving and a tension pulley, and which snatch block has such shape of opening or throat as to seize the band when moved in one direction and to release the band, when moved in the other, back to its former position preparatory to taking a new hold.

IMPROVED ANCHOR.

Fisher A. Buck, Eastport, Me.—This invention is a novel modification of the mushroom anchor, in which the arms that branch out radially therefrom are curved upward at the ends, and provided with an inclined and tapering fluke, of circular shape, that is riveted or otherwise securely fastened to the ends of the arms. The circular fluke may be made of suitable width, so as to impart to the anchor a greater holding surface and power of resistance. The main advantage of the circular fluke consists in the fact that it will prevent the fouling of the anchor.

NEW MISCELLANEOUS INVENTIONS.

IMPROVED AEROSTAT.

William S. Hull, Jackson, Miss.—This aerostat is designed to be used either in miniature form as a toy (being driven by a torsional rubber spring in this case) or upon a larger scale with steam, or other suitable motive power, as a flying machine. The improvement consists in the construction and arrangement of two propellers at opposite ends of a tubular frame containing the driving mechanism, the said propellers being arranged to rotate in opposite directions, and constructed each of a series of right-angled triangular blades or fans, having one side at right angles to the rotating shaft and their larger acute angles deflected away from the shaft and supported upon independent projecting arms or bars.

IMPROVED ORE WASHER.

Dexter A. Hendrick, Calumet, Mich.—This invention relates to an improved "vanning" process mineral dresser, which process proceeds upon the principle of separating the rich ore from the lighter earthy matter by reason of their different specific gravities when the pulverized material is agitated with water; the richer gravitating to the bottom, while the lighter earthy matter is thrown off at the top. The machine consists in a receiving pan which by a tilting motion imparts to its contents a rotary motion without revolving upon its own axis, which pan is provided with means for regulating its degree of inclination or tilt, and is supported upon or stepped in a jigger lever which is alternately lifted and allowed to drop by means of a cam or wiper wheel, so as to further agitate the contents of the pan; a revolving rake being employed in connection with the pan, which rake is always upon the high side of said pan.

IMPROVED TEETHING NIPPLE.

Charles E. Rogers, La Crosse, Wis.—This invention relates to means by which the teething of children may be facilitated, and consists in an instrumentality of peculiar form, the same being provided with a handle to adapt it to be manipulated by the child, and a nipple of such shape and length that the gums may be brought to bear upon it, while it cannot be forced too far into the mouth or throat so as to do harm.

NEW WOODWORKING AND HOUSE AND CARRIAGE BUILDING INVENTIONS.

IMPROVED DEVICE FOR SETTING, JOINTING, AND GAGING SAW TEETH.

Levi H. Bigelow, Fremont Center, Mich.—In order that saws may perform their function properly their teeth occasionally require to be set, to give them a uniform inclination or angle, also to be jointed, to make them uniform in length; and when clearers are used, they require to be cut down or made shorter than the fleam or cutting teeth, between which they are located. The object of this invention is to provide a cheap, simple constructed, but efficient device, for use in performing these operations.

IMPROVED BOX SCRAPER.

John P. Tierney, Sacramento, Cal.—The knife box is made hopper-shaped. The knife or cutter fits against the inner surface of the box, so that its edge may project through the slot in the bottom; said knife is easily adjustable. A roller is added which prevents the instrument from being clogged with shavings.

IMPROVED WHEEL TIRE.

Isaac N. Pyle, Decatur, Ind.—This construction is such that the outer tire may hug the inner tire snugly when shrunk upon it, and may draw said inner tire more firmly down upon the felloes, making the entire wheel firm and strong.

IMPROVED SASH HOLDER.

Luther Jones and James Stroud, New York city.—This consists in the arrangement of two rollers at right angles to each other, in a suitable frame for attachment to the upper corners of the window sashes of cars to relieve them of friction caused by the swelling of the sash or casings when damp, or by the warping of the sash or window frame.

IMPROVED METHOD OF ATTACHING HANDLES TO CROSSCUT SAWS.

Charles A. Sands, Burlington, Kan.—This invention consists of a saw with a detachable spring guard, that serves to stiffen the back of the same, and also to cover the teeth of the same after use. It consists, further, of adjustable handles applied to face plates clamped to the saw ends.

IMPROVED METAL WAGON BODY.

Simon Peter Graham, London, Ontario, Canada.—The body of the carriage is made of sheet metal, and constructed with a flange around the bottom, which rests upon the wooden sill, and is secured to it by screw bolts. The top of the body is also flanged and attached to a wooden piece which forms the support for the seat proper. The sides and back of the body are united by a lap seam or joint which performs the function of a brace. The body is cheaper and stronger than those heretofore constructed.

IMPROVED WAGON END GATE.

Stephen D. Davis, Malvern, Iowa.—This end gate forms a box-like extension of the wagon body, and is so attached to it that it may be adjusted vertically as well as horizontally. It may be readily detached from the wagon body, and is so constructed as to support the ends of the sides of the latter.

IMPROVED LATCH FOR DOORS, ETC.

Augustus C. Woolman, Bellefontaine, O.—This latch has the form of a quarter section of a sphere, and is pivoted in a socket attached to the gate. It also has a handle which hangs vertical, so that the latch maintains a horizontal position, except when the gate is being opened or closed. A beveled catch plate is attached to the post, so that when the gate is closed the catch will strike the same and be turned on its pivot till it passes the catch, when it at once resumes the horizontal position and engages with the catch.

IMPROVED SKYLIGHT.

Joseph Henry, Chicago, Ill.—This invention is an improvement upon that for which the same party received letters patent dated March 27, 1877. It relates to constructing in one piece the head of the bar or rafter, upon which the glass rests, and in supporting the head by means of flat bolts provided with shoulders for that purpose. The invention also relates to a double gutter joint for use between the rafters, the same being constructed with a bent flange that is inserted between the panes or plates of glass.

IMPROVED MACHINE FOR GRINDING SHAVINGS.

Isaac Tompkins and Abram G. Tompkins, Brooklyn, N. Y.—This invention consists of an interior grinding cylinder that revolves within an inclosing cylinder, having a cutting surface and exit perforations, the inclosing cylinder forming a space around the inner cylinder that diminishes gradually in width. The small pieces into which the shavings are cut pass through the perforations of the outer cutting cylinder to an exterior casing, from which they are conducted to a suitable receptacle.

IMPROVED OSCILLATING CUTTER HEAD FOR FINISHING SPOKES.

Joseph R. Locke, Amesbury, Mass.—This machine is so constructed that the cutter heads may be oscillated to bring their cutters into proper position for finishing spokes.

IMPROVED BOARD LATH.

Andrew A. Smith, Boulder, Col.—The object is to furnish a lath so constructed that it will not be necessary to break joints in putting it on, which will strengthen the building, and will require less studding and less labor to put it on than ordinary laths. The invention consists in a board lath formed by slotting boards of the proper thickness with sets of slots, alternating or breaking joints with each other.

IMPROVED PLATFORM WAGON.

Ebenezer H. Booth, West Colesville, N. Y.—This improvement in the construction of platform wagons enables the draft to be applied directly to the axle, so that the wagon box can be set level. Its holds the body or box against swaying, and may be used either with or without a reach.

IMPROVED SAWING MACHINE.

George J. Kautz, Emporium, Pa.—This is an improved sawing machine, designed for use in a sawmill for cutting off slabs, edgings, and other lumber into lengths for wood, laths, pickets, etc. It is so constructed as to feed the lumber forward to the saw, and feed the saw forward to the lumber automatically. It may be adjusted to cut off the lumber in longer or shorter lengths, as required.

IMPROVED SETTING, JOINTING, AND GAUGING THE TEETH OF SAWS.

Levi H. Bigelow, Fremont Center, Mich.—By this device the cutting or flew teeth of a saw can be set at a uniform angle and jointed to make them of uniform length, and the clearers or clearer teeth can be gauged to a uniform length (but less than that of the cutting teeth, between which they are located). The device is extremely cheap, simple in construction, compact in form, and apparently adapted to cooperate efficiently.

IMPROVED METHOD OF MAKING WOODEN BOXES.

William Huey, Cambridge, Md.—This invention relates to certain improvements in the construction of wooden boxes, which improvements are designed more particularly for that class of wooden boxes which are stiff and rigid in shape, such as are employed for holding hats, caps, boots, shoes, thread, cotton, cigars, and all fancy articles, but which improvements are applicable to and designed to be also used in the construction of fruit baskets, crates, etc. The improvement consists in the manner of forming the bend or joint at the corners, whereby a single piece of board is made to form the several sides of the box without the trouble of measuring and fitting, and without the use of nails, screws, or dovetails for this purpose. The manner of forming the joint is to cut, by means of revolving cutterheads, preferably transverse channels across the board, and then after steaming the board to bend the same around. A peculiar form of channel which permits the successful bending of the board without breaking constitutes the main feature of novelty, which channel has straight angular sides that form a miter when the board is bent, with a curved groove at the bottom of the angular groove which affords bending room to prevent cracking.

IMPROVED STOP HINGE FOR CARRIAGE DOORS.

Charles W. Butler, New York city.—This is an improved hinge for carriage doors, trunks, etc., which stops the doors, covers, and other objects when the latter have been opened to about right angles. The invention consists in two bars hinged to each other at their inner ends, and at their outer ends hinged to the outer edges of the slotted plates or wings of a hinge.