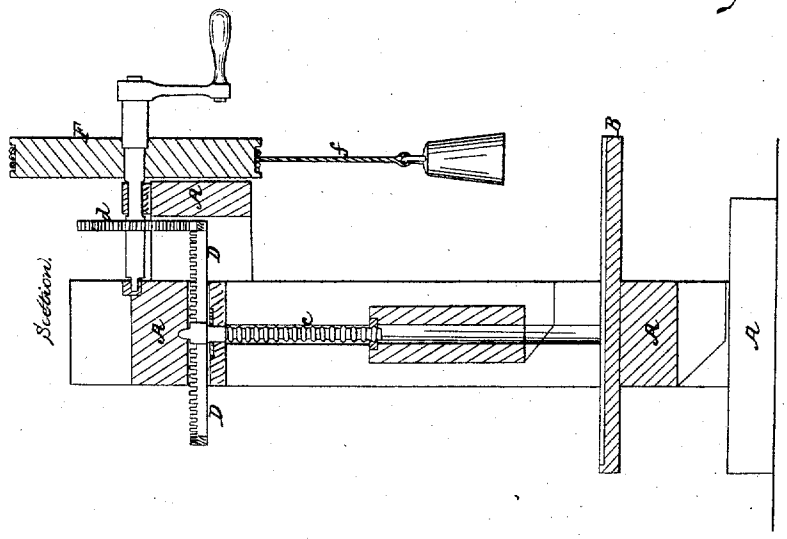
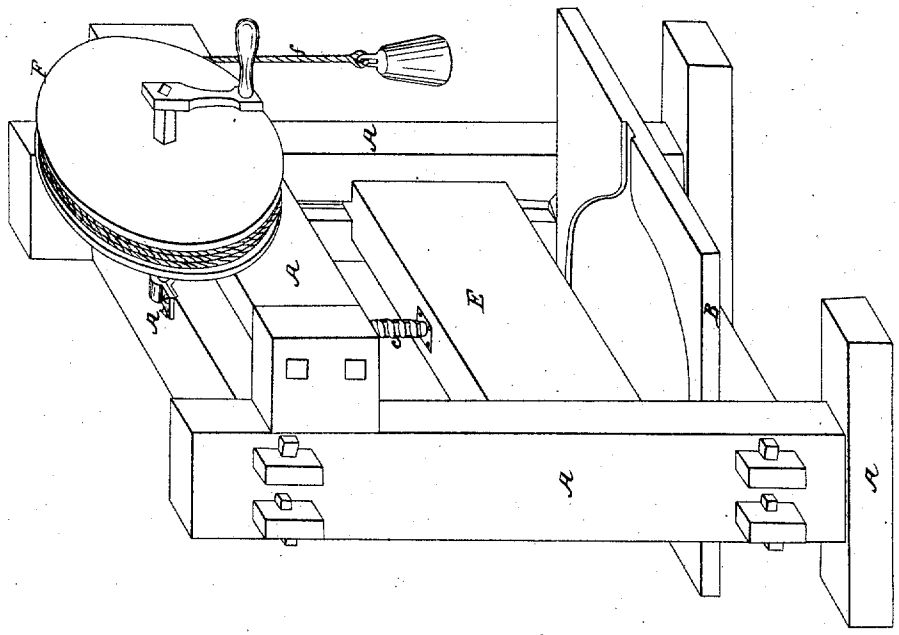
6741X

J. Tinkler,

Cheese Press.

Patented Aug. 31, 1831.





AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

Aug. 31. 1831

335

6741X

Joseph Tinkler

Letters Patent.

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Joseph Tinkler himself of his Improvement in the Art of Pressing—

Be it known that I the said Joseph Tinkler have invented, constructed and applied to use a new and useful improvement in the application of the wheel, pinion and crank or pulley to the screw in Pressing. The said press containing said improvement and of a convenient size and power for pressing Cotton is specified in the words following viz. I construct a frame in the following manner, make two pieces for the feet, fifteen inches long two & a fourth inches thick & two & three fourths inches deep— exactly in the centre of which, make a mortise five and one half inches long, and one inch wide; into these feet frame two posts two feet ten inches in length clear of the tenons, five & one half inches wide, & two & one fourth inches thick, in such a manner that they will incline forward three fourths of an inch in their whole length, where liquor is to be pressed; otherwise their position will be at right angles with the feet. Two and three fourths inches from the shoulder of the tenons make two mortises parallel to each other through each of these posts three inches long, one inch wide leaving a space of one and three fourths inches between them and within three inches of the upper end of the posts, make two similar mortises, then on the inside of said posts two inches below the upper mortises and exactly under the same, make two mortises of one inch square and one inch deep, also on the inside of the posts, make a groove one inch wide and three fourths inches deep, extending from the lower edge of the small mortises, to within one inch of the upper edge of the first described mortises, and exactly in the centre of the posts,

These posts are connected by three pieces of timber, two of which called braces are five & half inches wide, three inches thick, and fifteen inches long from shoulder to shoulder with tenons corresponding with the aforesaid mortises of sufficient length to admit of a key on the outside of the posts; the other

8/31/1831 6741X

of the same length and width of the beam, one inch thick with tenons corresponding with the small mortises in the posts. —— On the front side of each post in the center thereof and within six inches of the upper end, is made a mortise three inches long, one inch wide and two inches deep; into these mortises, frame two pieces five & half inches wide, five inches long and two & one fourth inches thick, by tenons projecting from the centre of the under edges of said pieces, and corresponding with said mortises, within one inch of the outer end of each of these pieces, and within three fourths of an inch of each edge, make a mortise through the same of one inch square — Let the ends of these two pieces be connected by a piece fifteen inches in length from shoulder to shoulder, five & half inches wide, two inches thick, with two tenons at each end corresponding with the mortises in the pieces last described so as the front side of said pieces may exactly correspond with the ends of the aforesaid pieces. —— Construct a platform fifteen inches wide eighteen inches long, and one inch thick, this fasten on the upper side of the lower beams of the press, so as to project three inches more to the front side than to the rear. On the upper side of said platform cut a circular niche, whose centre should be exactly in the centre of the press, and whose diameter is fourteen inches, diverging from the regular circumference of said circle so as to conduct the liquid to the front side of the press; construct a screw of wrought iron eleven inches long, let nine inches of the same be turned, to seven eighths of an inch thick. On this part cut a thread eight inches long, one inch round and smooth, the next inch on the same to be square, for the purpose of admitting a cog wheel, the balance projecting above said wheel, must be turned nearly to a point to prevent friction in pressing, which point is placed against a step or plate of iron or steel fastened in the centre of the lower side of the upper beam of the press. ——

For the purpose of a collar to support the screw, take an iron plate of two & half inches square, one eighth inch thick; in the center of which is a hole sufficiently large to admit the neck of the screw, this plate is fastened on the upper side of the small piece below the upper beam of the press, the hole of the collar, to correspond with a hole through the centre of said piece to admit the screw. In this screw is transmitted a motion by means of a rut fastened into the upper side of a fifteen inches long

8/31/1831 6741X

from shoulder to shoulder, eight inches high, and three inches thick; with bevils at each end, corresponding with the groove on the inside of the post. –

Through the centre of the fulcrum corresponding with the centre of the mortice a hole of sufficient size to admit the screw to play freely. —— On the square part of the screw, fasten firmly a cast iron cog wheel, twelve inches in diameter, with the cogs on the upper side for the purpose of turning it, with a vertical spur wheel or pinion: This vertical wheel is six inches in diameter, and of cast iron with a square hole in the centre, for the purpose of admitting a wrought iron gudgeon, this gudgeon is eight and a half inches long, one end is turned and works in a box placed upon the top of the upper beam near the edge three from that end measure five & half inches towards the other and there turn another part for the purpose of working in a box, fastened in the centre of the upper side of the fixed extending across the front side of the post. —— This gudgeon is fixed horizontally in such a manner as to admit the vertical wheel which is fastened firmly upon it to work regularly into the horizontal wheel on the head of the screw,

Two inches of the square part of this gudgeon will project over the front side of the post, for the purpose of admitting a pulley, by which the post is moved; this pulley is thirteen inches in diameter, and so turned that it will admit of a cord to pass around it, to which a weight is suspended when it is required to continue the pressure,

Into the front side of this pulley and near the verge of the same put a handle, projecting three inches from the pulley. Application.

The method of using this press is simply to place the article to be pressed upon the platform, then by turning the pulley with the hand the screw is caused to turn, by which means the follower is forced to slide down the groove on the inside of the posts. After turning with the hand it is required to continue the pressure, suspend a weight to the pulley by a cord. —— The same principle will hold good with any number of screws by connecting them with cog wheels at the head. I would also hereby observe that the proportion may be varied according to the thickness of the article to be pressed and the quantity of power required. The foregoing specification details a machine sufficiently powerful for the forging of chaise bed that of a machine sufficiently large for forging cider but the horizontal wheel be enlarged to five or more feet of segment and the screw in proportion.

Witnesses John Overlander
Thomas Matthews

Joseph Winkler.

E. Dyer