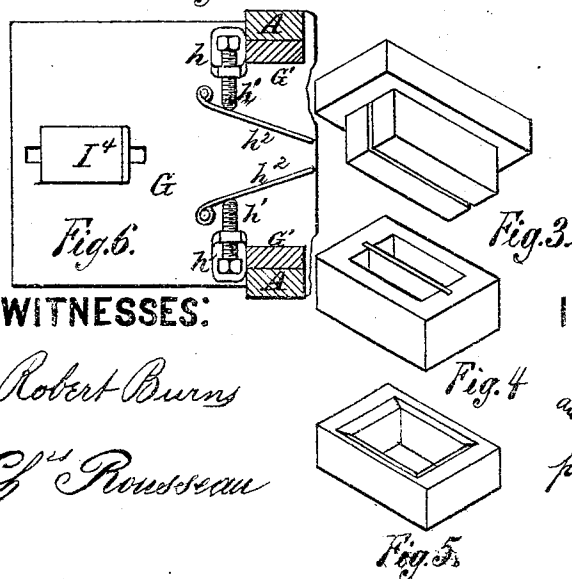
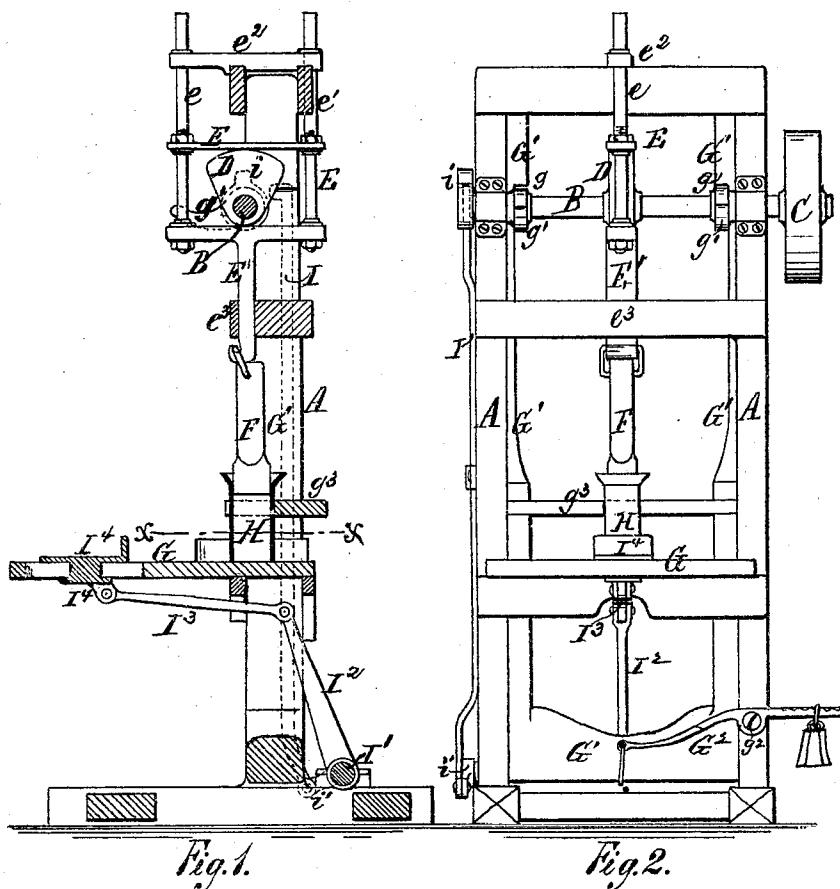


I. T. HARDY & C. PEPER.

Improvement in Tobacco Presses.

No. 132,362.

Patented Oct. 22, 1872.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ISHAM T. HARDY AND CHRISTIAN PEPER, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN TOBACCO-PRESSES.

Specification forming part of Letters Patent No. 132,362, dated October 22, 1872.

To all whom it may concern:

Be it known that we, ISHAM T. HARDY and CHRISTIAN PEPER, both of St. Louis, in the county of St. Louis and State of Missouri, have invented a certain new and useful Improved Tobacco-Press; and we do hereby declare that the following is a full and true description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

This invention relates to presses chiefly for packing, shaping, and pressing tobacco. The nature thereof consists, firstly, in combination with a press operating the plunger by means of a triangular cam to compress the tobacco or material in a funnel-receiver, the arrangement of a sliding frame, which is operated by trippers on power-shaft to lift and withdraw said funnel out of the sack; this part of our improvement being to compress and pack smoking-tobacco, spices, &c., in small bags or sacks. Secondly, our invention consists in providing the press with a feeder attachment, operated by wipers from power-shaft, to feed various molds or forms containing leaf-tobacco directly in line to plunger for purpose of pressing, shaping, and packing plug-tobacco of equal weight and size. Lastly, to certain detail improvements, all of which will now more fully appear.

To enable those herein skilled in the art to make and use our said improvements, we will now more fully describe the same, referring to—

Figure 1 as a transverse sectional elevation; to Fig. 2 as a front elevation; to Figs. 3, 4, and 5 as showing various forms used for forming plug-tobacco; to Fig. 6 as a plan of table at line *x x*.

A represents a suitable frame of wood or iron. B is the driving-shaft, secured in proper journal-bearings. C is belting-pulley, to be operated from power source. The shaft B we provide with a triangular cam, D, arranged to operate in yoke E, (see Figs. 1 and 2.) The yoke E is guided in its vertical movement by its gny-rods *e e'* sliding in the top cross-piece *e''*, while the plunger-stem E' (which forms part of yoke) is guided through cross-piece *e''*, as shown in Figs. 1 and 2. The operation of the cam D imparts to yoke E a vertical intermittent motion; said motion being communicated

to plunger F, which simply hangs from the hook end of plunger stem or shaft. Properly attached to frame A is a table, G. Within press A we arrange to slide a movable frame, G¹. Said frame has its sides beveled or slanting to top at *g*, where said frame is acted upon by the revolution of the respective trippers *g'*, which are secured on driving-shaft. (See Fig. 2.) By the action of the trippers engaging the sliding frame G¹, the same is lifted—the required lift movement being accomplished and the trippers passing out of engagement from said frame, the same by its own gravity drops into its original operative position. The falling action of the sliding frame G¹ is graduated by a proper weight placed in the notches of the treadle-lever G²; said treadle-lever being pivoted at *g''* to the frame, and properly connected to the bottom of the sliding frame. H represents the funnel-receiver, which is placed and supported in the cross-piece *g''* of the sliding frame G¹. The sack to be filled is partially drawn over the lower portion of the funnel H, which is filled with smoking-tobacco. The plunger F descends, forces, and presses the tobacco into bag or sack, and as soon as the lift movement of sliding frame G¹ takes place, the funnel is lifted and withdrawn from the packed bag. Thus smoking-tobacco, spices, and similar articles can be packed in small packages, bags, or sacks in a most ready and efficient manner.

We further provide the press with the following "feed attachment" for plug-tobacco: To one side of frame A, and properly guided, we arrange a connecting rod or bar, I; said bar at top has its projection acted upon by a wiper, *i*, which is keyed to end of driving-shaft. (See Figs. 1 and 2.) At its lower end the connecting-bar I is pivoted to a link, *i'*, on end of the lower shaft I¹, which turns in proper journal-bearings bolted to frame A. Further, the shaft I¹, by its arm I², connects with a secondary bar, I³, which is pivoted to the feed-guide I⁴, arranged to properly slide on the table G, as indicated in Figs. 1, 2, and 6. The operation of the wiper *i* by its projection (shown in dotted lines, Fig. 1) engaging with the top of the connecting-bar I, raises and actuates same to communicate to the feeder I⁴ an inward feed motion. Various wooden or metallic forms of different sizes and shapes

can be made and used for the formation of plug-tobacco.

Figs. 3 and 4 represent a double form; Fig. 5, a single form for this purpose; the constructive manner of said forms being clearly indicated in said figures. The leaf-tobacco after being properly weighed is placed in the required forms. One or more of said forms thus filled and placed on the table, so as to abut against the ledge of the feeder I^1 , are carried or fed in line to the plunger, which presses, shapes, and packs, and forms the required plug. The feeder attachment by its own weight returns in operative position, the operator replacing another form, and thus successively each form is fed to and acted upon by the plunger. The table G is provided with brackets h , containing set-screws h^1 , which engage and operate the pivoted guide-bars h^2 , as clearly shown in Fig. 6; the object of this arrangement being to properly steady and guide the boxes or forms as they are being fed to plunger. The plug-tobacco is thus formed in a most ready manner and each plug of equal weight and size, avoiding the ordinary method of rolling, wrapping, and flattening the tobacco, and especially avoiding the use of any cutting processes whatever—advantages that are readily apparent.

Having thus fully described our said improvement, what we claim is—

1. A press, consisting of frame A , driving-shaft B , pulley C , variable cam D , yoke E , guy-rods e e^1 , plunger-stem E' , cross-piece e^3 , plunger F , and table G , all constructed to operate as and for the purpose set forth.

2. The arrangement of a sliding frame, G^1 , cross-piece g^3 , weighted lever G^2 , funnel H , and trippers g^1 , as and for the purpose set forth.

3. The arrangement of a sliding frame, G^1 , cross-piece g^3 , weighted lever G^2 , funnel H , trippers g^1 , in combination with a press, consisting of frame A , shaft B , variable cam D , yoke E , guy-rods e e^1 , plunger-stem E' , cross-piece e^3 , plunger F , and table G , all constructed to operate as and for the purpose set forth.

4. The feeder devices and guide attachments, being a connecting-rod I , link i^1 , shaft I^1 , arm I^2 , connecting-bar I^3 , feed-guide I^4 , brackets h , screws h^1 , pivoted guards h^2 , operating in combination with a press, as here shown and described, as and for the purpose set forth.

In testimony of said invention we have hereunto set our hands in presence of witnesses.

ISHAM T. HARDY.
CHRISTIAN PEPPER.

Witnesses:

WILLIAM W. HERTHEL,
ROBERT BURNS.