

No. 608,268.

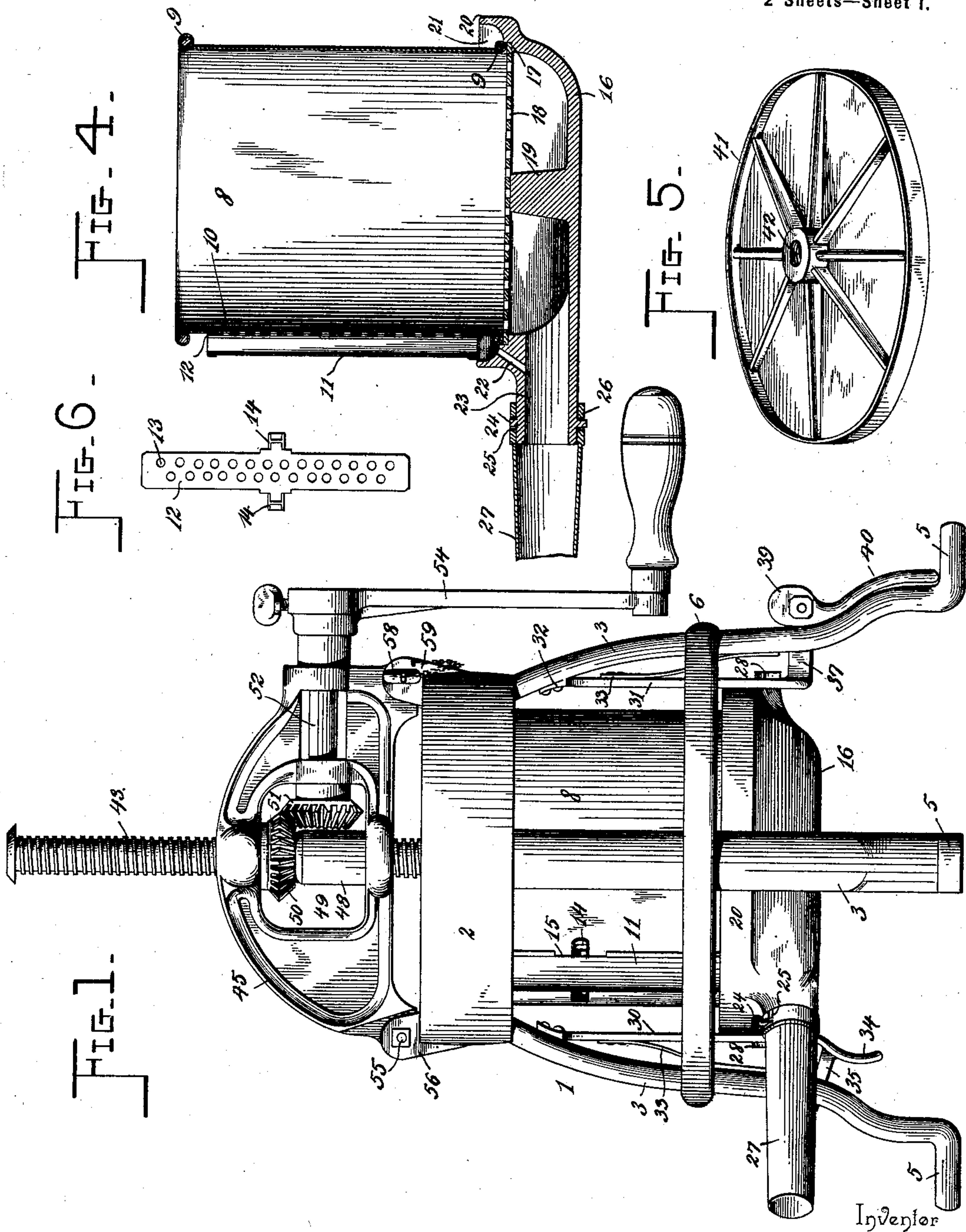
Patented Aug. 2, 1898.

G. W. PELTON.
DOMESTIC PRESS.

(Application filed May 8, 1897.)

(No Model.)

2 Sheets—Sheet 1.



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By his Attorneys,

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2 Sheets—Sheet 2.

FIG-3-

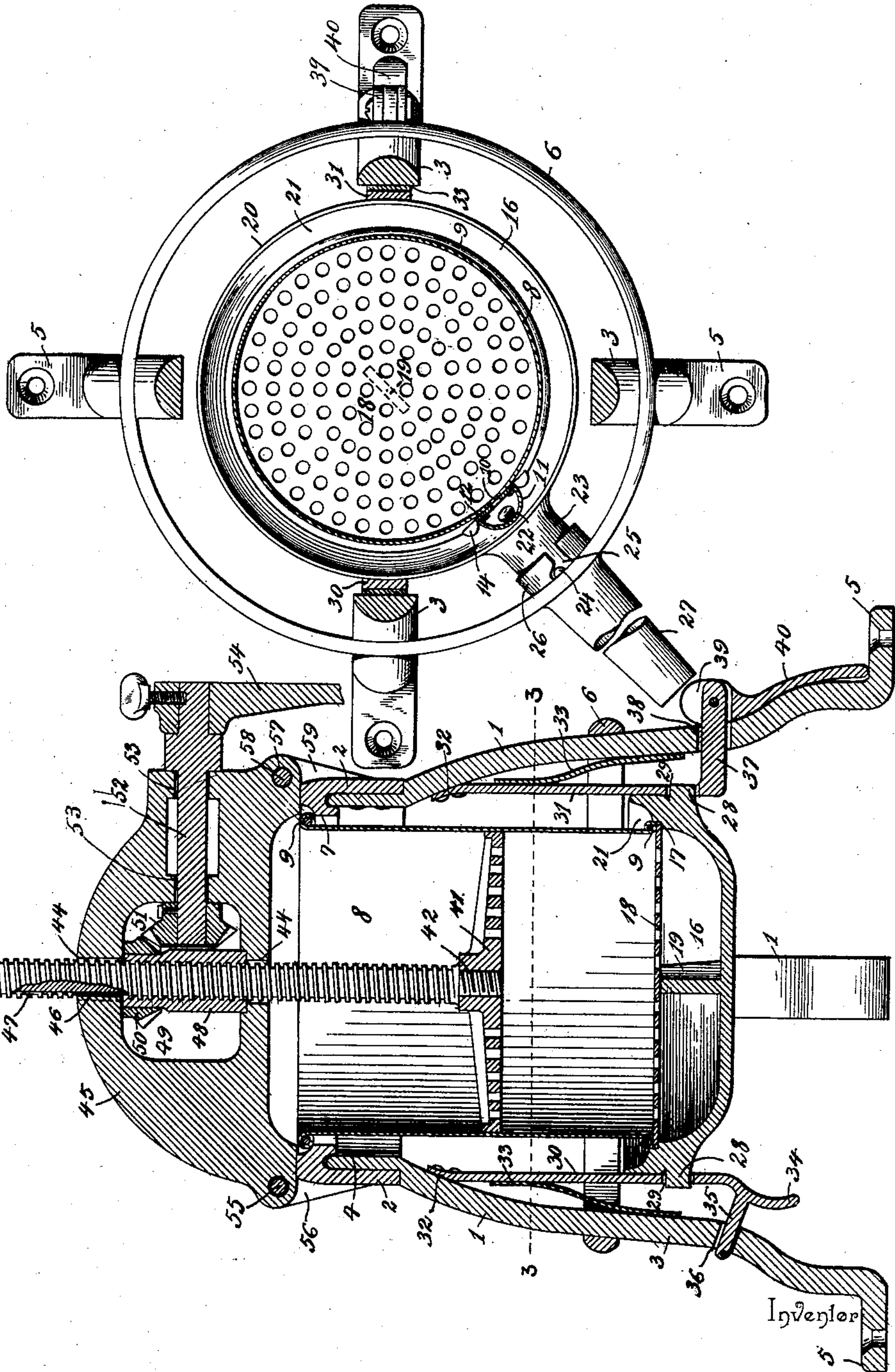


FIG-2-

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UNITED STATES PATENT OFFICE.

GEORGE W. PELTON, OF MUSCATINE, IOWA.

DOMESTIC PRESS.

SPECIFICATION forming part of Letters Patent No. 608,268, dated August 2, 1898.

Application filed May 8, 1897. Serial No. 635,724. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. PELTON, a citizen of the United States, residing at Muscatine, in the county of Muscatine and State of Iowa, have invented a new and useful Domestic Press, of which the following is a specification.

This invention relates to domestic presses; and it has for its object to provide a simple and efficient press of this character that can be adapted for a variety of uses, such as pressing fruit and other substances for the purpose of extracting the juice therefrom and also for stuffing sausage.

To this end the invention also contemplates constructing the press in such a manner that access may be readily had to every part thereof, so as to facilitate cleaning, while at the same time having the separate parts mounted and relatively arranged in a practical and convenient manner to adapt the press for an unlimited number of uses.

With these and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the drawings, Figure 1 is a side elevation of a domestic press embodying the improvements contemplated by this invention. Fig. 2 is a central vertical sectional view thereof. Fig. 3 is a horizontal sectional view on the line 3 3 of Fig. 2. Fig. 4 is a vertical sectional view of the removable cylinder and removable bottom basin in a vertical plane, including the exterior drain-tube of the cylinder and the discharge neck and spout of the basin. Fig. 5 is a detail in perspective of the imperforate form of follower-head employed in certain operations of the press, such as in stuffing sausage. Fig. 6 is a detail elevation of the sliding cut-off plate for the exterior drain-tube of the cylinder.

Referring to the drawings, the numeral 1 designates an upright supporting-stand, having at the top a frame-ring 2 and a plurality of spaced supporting-legs 3, connected at their upper ends in any suitable manner, as at 4, with the inner side of the ring 2 and provided at their lower ends with the attaching flanges or feet 5, which are adapted to be fastened to

any suitable base or table designed to support the press for use. The supporting-stand 1 also includes a bracing-band 6, which encircles the entire series of legs 3 intermediate the ends of the latter and serves to provide a light and strong skeleton supporting-stand for the working parts of the press.

The frame-ring 2 of the supporting-stand is provided with an inner annular rest-shoulder 7, which forms a support for the press-cylinder 8, made of suitable sheet metal and adapted to be removably arranged within the stand. The said press-cylinder 8 is open at both ends and is provided at each end with an exterior annular reinforcing-bead 9, the upper of which beads is the larger and is designed to form a supporting-flange which engages with the rest-shoulder 7 of the ring 2 and provides for properly supporting the cylinder in place. The press-cylinder 8 is further provided in its side with a vertical longitudinal series of drain-openings 10, which are of importance in the pressing of substances containing liquid or juice, and which openings communicate with the interior of an exterior drain-tube 11, arranged longitudinally of the cylinder 8 and fitted on the exterior thereof.

The exterior drain-tube 11 is slightly shorter in length than the cylinder 8, but is open at its ends to permit of the free draining of liquids out through the lower end thereof, and to provide for covering and uncovering the drain-openings 10 there is employed a sliding cut-off plate 12, having a longitudinal series of openings 13, corresponding in number and size to the openings 10. The sliding cut-off plate 12 is of a length substantially equaling the length of the tube 11 and is arranged to work within this tube flat against the outer side of the cylinder 8, and at a point intermediate its ends the said plate 12 is provided with lateral finger-buttons 14, projected from opposite side edges thereof through slots 15, formed in opposite side edges of the tube 11. By grasping the finger knobs or projections 14 of the cut-off plate the latter may be moved up or down, as may be desired, to provide for covering and uncovering the drain-openings 10.

The lower end of the removable press-cylinder 8 is covered or closed by the removable bottom basin 16, which basin is dished suf-

ficiently to provide for receiving the matter pressed out of the cylinder 8 and to permit of the free discharge of such matter. The said bottom basin 16 is provided with an interior 5 annular shoulder 17, receiving the edges of a flat circular perforate strainer-plate 18, which is braced at its center by a brace projection 19, projected integrally in an upward direction from the central lower side of the basin 10 16, and the said perforate strainer-plate 18 practically forms the bottom plate for the cylinder 8, as the lower end of this cylinder rests on the edges of said plate within the shoulder 17.

15 The removable bottom basin 16 is provided at its edge with an upwardly-disposed gutter-flange 20, forming at the inner top edge of the basin, which surrounds the lower end of the cylinder 8, an annular drain-gutter 21, 20 which receives the drain from the tube 11 and also receives any matter that may be forced under the bottom edge of the cylinder 8. The said annular drain-gutter 20 of the bottom basin communicates with a drain-port 25 22, which pierces the basin at a point near one edge and opens into the laterally-extended discharge-neck 23, projected from one side of the basin in the plane of the bottom thereof. The said discharge-neck 23 is provided with oppositely-disposed exterior studs 30 24, adapted to detachably interlock with the bayonet or L slots 25, formed in the collar 26, at the inner end of the detachable tapering discharge-spout 27, which projects from the 35 basin between the legs of the stand and serves to conduct the expressed matter to the point where the same is collected.

The removable bottom basin 16 is provided at diametrically opposite sides with offstand- 40 ing supporting-lugs 28, adapted to detachably engage in the catch-openings 29, formed in the oppositely-located hanger-straps 30 and 31, respectively, which are loosely secured at their upper ends, as at 32, respectively, to 45 the inner sides of diametrically opposite legs 3 of the supporting-stand. Both of the diametrically opposite hanger-straps 30 and 31 are normally pressed inward and held in engagement with the lugs by means of the 50 springs 33, secured at one end to the straps and bearing at their other ends against the adjacent legs, while the hanger-strap 30 is provided below its catch-opening 29 with a curved finger portion 34, from which is extended a 55 guide-arm 35, working in an opening 36, formed in the adjacent leg 3 of the stand. The other opposite hanger-strap 31 is provided below the plane of its catch-opening 29 with an outturned arm 37, working in an 60 opening 38 in the adjacent leg 3 and having pivoted on its outer extremity the bifurcated cam-head 39 of the cam-lever 40, arranged to work at the outer side of the leg 3, having the opening 38. By moving the cam-lever 65 40 upward the cam-head 39 thereof rides against the outer face of the leg 3 and serves to draw the hanger-strap 31 out of engage-

ment with one of the lugs 28, thereby releasing one side of the bottom basin 16, after which the opposite side of the bottom basin 70 may be released from the hanger-strap 30 by pressing said hanger-strap outward with the thumb or finger. In this connection it will be observed that by the use of the cam-lever the bottom basin 16 may be released from its 75 supports, so as to uncover the lower end of the cylinder 8 when necessary, irrespective of the pressure that may be exerted in a downward direction on the basin, as will be readily understood by those skilled in the art. 80

The press-cylinder 8 receives for movement therein the circular plunger head or plate 41, which may be perforate or imperforate, according to the character of the work, a perforate plunger being shown in Fig. 2 and 85 an imperforate plunger being shown in Fig. 5. The circular plunger-head 41 is provided with the central threaded opening 42, in which is removably fitted the lower end of the screw-stem 43, working through opposite aligned 90 guide-openings 44, formed in the hinged top bracket 45, which bracket is provided with a key projection 46, extending into one of the openings 44 and engaging in the longitudinal groove 47, formed in one side of the screw- 95 stem 43 to prevent said stem from turning as it is moved up and down by the rotation of the nut 48. The nut 48 is arranged for a fixed rotation within the gearing-opening 49, formed centrally within the bracket 45, and 100 said nut is provided with a beveled gear-pinion 50, meshing with a similar adjacent pinion 51, fitted to the inner end of a short crank-shaft 52, journaled in suitable bearings 53, formed in a bracket 45 and disposed 105 at right angles to the stem 43. The said crank-shaft 52 has detachably fitted to its outer extremity a crank-handle 54, which is manipulated to provide for screwing the plunger up and down in the press-cylinder. 110

The bracket 45, which may be properly termed a "gearing-bracket," is hinged at one end on a hinge-bolt 55, between a pair of hinge-ears 56, projected upwardly from one side of the frame-ring 2, and the opposite unhinged 115 end of the bracket is provided with a pin-opening 57 to removably receive a fastening-pin 58, adapted to also engage in aligned openings formed in a pair of spaced ears 59, projected integrally from the ring 2 at a point 120 opposite the ears 56 and providing means in connection with the pin 58 for fastening the gearing-bracket on top of the supporting-stand. When the gearing-bracket is thus fastened in position, the same also engages 125 with the top edge of the cylinder 8 at diametrically opposite points to prevent upward displacement of such cylinder during the operation of the press. When it is necessary to remove the press-cylinder 8 from the stand, 130 the crank-handle 54 is operated until the plunger is carried to its upper limit of movement at the top of the press-cylinder, after which the bracket 45 is swung backward on

its hinge, and it is to be observed that the screw-stem 43, by reason of its length, serves as a leg and rests on the base or table supporting the press to provide a support for the bracket to relieve the hinge thereof from strain due to the weight of the bracket and the several parts carried thereby.

In operating the press to extract fluids or juices from different substances the parts are assembled in the manner described and the substance to be pressed placed in the press-cylinder 8, after which the bracket 45 is fastened over the press-cylinder to permit the plunger being forced downward therein. During the pressing of such substances as contain juice or fluid the latter will rise through the perforations in the perforate plunger and will find ready escape through the drain-openings 10 and tube 11 to the drain-gutter 21 of the removable bottom basin, and thence to the discharge-spout, thereby obviating the possibility of expressed juice or liquid which rises through the perforate plunger from being passed back through the refuse below the plunger. When the material is pressed as much as desired, the bottom basin is released in the manner herein described, so as to uncover the bottom of the cylinder, and thereby permit the contents thereof being forced out of the same, after which the cylinder is refilled, if desired. In stuffing sausage the skins or casings are placed over the end of the spout 27, the strainer-plate 18 removed, and the imperforate plunger substituted for the perforate plunger. The plate 12 is also adjusted to cover the openings 10, so that when the plunger is forced downward the entire meat contents of the cylinder will be forced out through the bottom basin and the discharge-spout 27. Various other uses of the press will readily suggest themselves to those skilled in the art.

While only one set of drain-openings 10 is shown in connection with the press-cylinder, it will be obvious that this particular construction may be duplicated or multiplied on the cylinder, and various other changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. In a press, an upright supporting-stand, a press-cylinder open at both ends and detachably suspended at its upper edge within the stand, a gearing-bracket mounted on the stand and arranged to be secured over the top edge of the cylinder at its point of suspension, to prevent upward displacement of the latter, a removable bottom basin arranged over the lower open end of the cylinder and adapted to be dropped below the plane of the latter, oppositely-located hangers fixedly positioned within the stand and having a detachable catch engagement with the basin,

and a follower arranged to work within the cylinder, substantially as set forth.

2. In a press, a supporting-stand essentially comprising a plurality of legs and a frame-ring fitted to the upper ends of said legs and provided with an inner annular rest-shoulder, a press-cylinder open at both ends and provided at its upper end with an annular bead forming a flange detachably resting on said rest-shoulder, a bottom basin arranged over the lower open end of the cylinder, and the follower, substantially as set forth.

3. In a press, a supporting-stand, a press-cylinder arranged within the stand, the follower, a removable bottom basin adapted to be arranged over the lower end of the cylinder, oppositely-located hangers fixedly positioned within the stand and having a detachable catch engagement with diametrically opposite sides of the basin, and means for releasing said hangers from the basin, substantially as set forth.

4. In a press, a supporting-stand, a press-cylinder arranged within the stand, the follower, a removable bottom basin adapted to be arranged over the lower open end of the cylinder, movable hangers arranged at opposite points within the stand and adapted to have a detachable engagement with the basin at diametrically opposite points thereof, and a lever connection with one of said hangers to provide for moving the same outward out of engagement with the basin, substantially as set forth.

5. In a press, a supporting-stand, a press-cylinder arranged within the stand, the follower, a removable bottom basin for the cylinder provided at diametrically opposite points with offstanding lugs, oppositely-located hanger-straps fitted at their upper ends to diametrically opposite points within the stand and provided with catch-openings adapted to engage over the lugs of said basin, one of said hanger-straps being provided below its opening with a finger portion, and the other of said straps being provided with an outturned arm extending through an opening in the adjacent portion of the stand, a lever having a bifurcated cam-head pivotally mounted on the outer extremity of said outturned arm, and springs arranged to normally move said hanger-straps in an inward direction, substantially as set forth.

6. In a press, a supporting-stand, a press-cylinder removably fitted within the stand, a bottom basin removably supported independently of the cylinder, over and in contact with the lower end of the latter, said basin being provided with a side discharge-neck, an annular drain-gutter arranged to surround the lower end of the cylinder to receive any matter that may be forced under the bottom edge thereof, and a drain-port piercing the basin near one edge and providing direct communication between said annular gutter and the discharge-neck, and the follower, substantially as set forth.

7. In a press, the supporting-stand, a press-cylinder arranged within the stand and provided with an exterior longitudinally-disposed drain-tube and a longitudinal series of drain-openings communicating with said tube, a bottom basin arranged over the lower open end of the cylinder and provided with a perforate false bottom or strainer-plate, and with a discharge-neck disposed below the plane of said false bottom or strainer-plate, and an annular drain-gutter surrounding the lower end of the cylinder above the plane of said false bottom or strainer-plate and having communication with said discharge-neck, and the follower, substantially as set forth.

8. In a press, the supporting-stand, a press-cylinder arranged within the stand and provided with an exterior longitudinally-disposed drain-tube open at both ends, and a series of drain-openings providing communication between the cylinder and the tube, a sliding cut-off plate mounted within the tube against the outer side of the cylinder and provided with a longitudinal series of openings, said cut-off plate being further provided at a point intermediate its ends with lateral finger-buttons projected through slots in the edges of the drain-tube, a bottom basin provided with an annular gutter surrounding the cylinder below the plane of the lower end of said tube, and communicating with a drain-port, and the follower, substantially as set forth.

9. In a press, a supporting-stand, a press-cylinder removably fitted within the stand, a bottom basin removably supported independently of the cylinder over the lower open end

thereof, said bottom basin being provided with an interior annular shoulder, a central brace projection, and a lateral discharge-neck, a perforate strainer-plate fitted within the interior shoulder of the basin and resting on the brace projection thereof under the bottom edge of the cylinder, the follower, and a discharge-spout having a detachable connection at its inner end with said discharge-neck of the basin, substantially as set forth.

10. In a press, the supporting-stand provided at the top with a frame-ring, having oppositely-located pairs of ears, a press-cylinder removably supported within the stand, a gearing-bracket hinged at one end between one pair of ears, a detachable fastening for securing the unhinged end of said bracket between the opposite pair of ears, a screw-stem mounted to slide through opposite aligned guide-openings formed in said bracket, a nut mounted for fixed rotation within the bracket and receiving said screw-stem, said nut carrying a beveled gear-pinion, a plunger working within the cylinder and detachably fitted to one end of said screw-stem, and a crank-operated shaft journaled in bearings formed in the bracket and carrying at its inner end a beveled gear-pinion meshing with the similar pinion of said nut, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE W. PELTON.

Witnesses:

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