

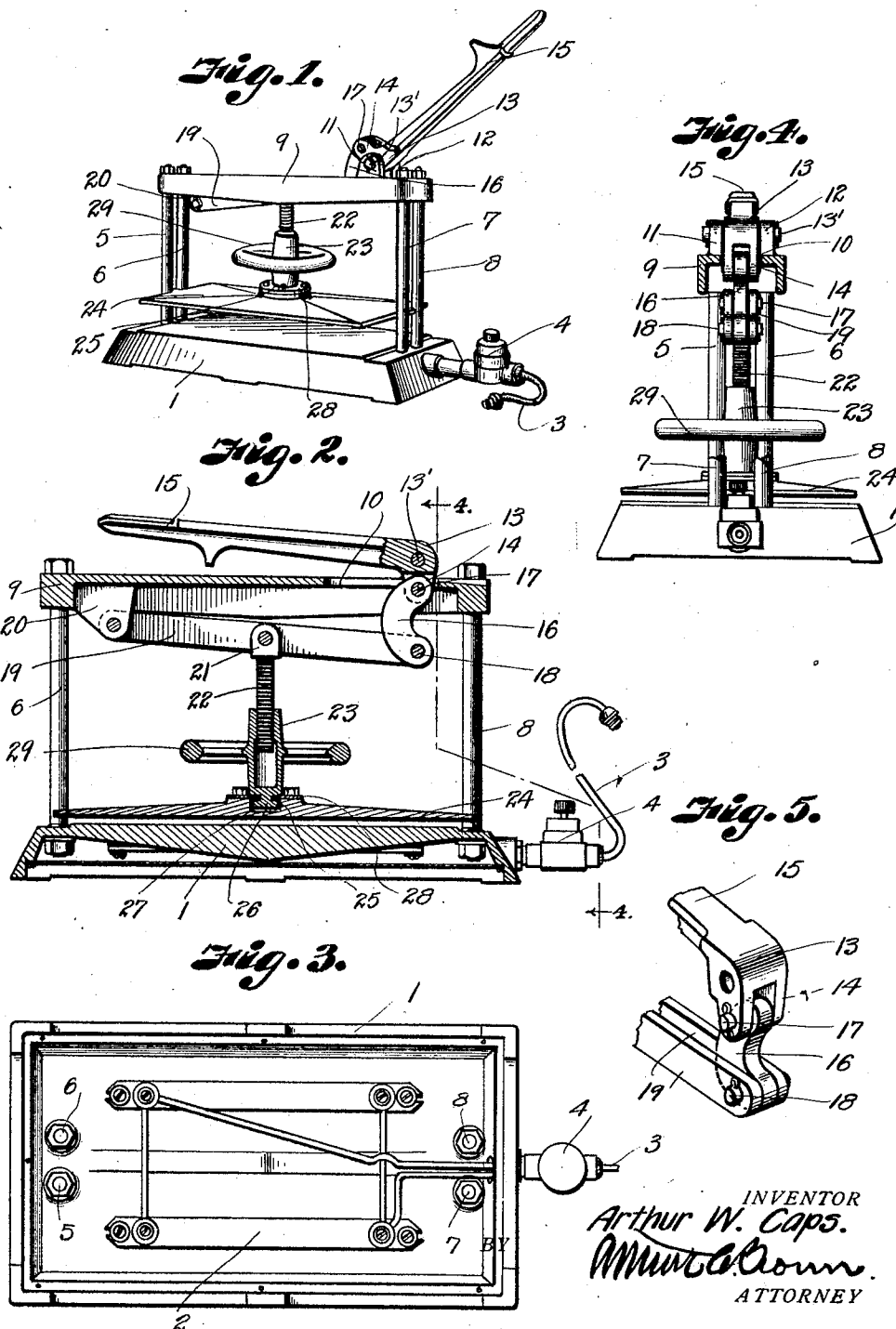
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DRYING PRESS

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UNITED STATES PATENT OFFICE.

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DRYING PRESS.

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This invention relates to drying presses, and while it is applicable to numerous uses, it is primarily intended as a press for drying photographic prints and the like.

5 The invention contemplates a structure in which a heated base or table is employed to receive the prints, these being held in clamped position by a platen or clamping board adapted to be pressed down upon
10 the prints by a quick action mechanism whereby the platen may be quickly raised out of clamping position when necessary, a screw mechanism being effective to adjust
15 so that a slight turn of the screw will adjust the platen to any number of photographic prints, and thereafter remain constant for a given number of prints, thereby greatly
20 facilitating the action when a certain number of prints are to be dried each time.

The novel construction of the invention will be specifically described hereinafter, reference being had to the accompanying drawings, in which

25 Fig. 1 is a perspective view of a drying press constructed in accordance with my invention.

Fig. 2 is a vertical longitudinal sectional view through the same.

30 Fig. 3 is a bottom view of the press.

Fig. 4 is a sectional view on the line 4—4 of Fig. 2, and

35 Fig. 5 is a perspective view of the lever connections of the quick operating mechanism.

The base 1 may consist of any suitable material adapted to hold and retain heat and it may be heated by an appropriate heater generically designated as 2, and shown
40 as an electric heater receiving current from a suitable source of supply through the conductor 3 controlled by the switch 4.

Upon the base 2 are four posts 5, 6, 7, and 8, connected at their upper ends by a longitudinal beam or bar 9 having a longitudinal slot 10. At one end of the slot are upstanding ears 11 and 12 between which is pivoted
45 an elbow lever 13 having a bifurcated short arm 14 and a relatively long manually operated arm 15. The short arm 14 of the lever 13 extends through the slot 10, and received in the bifurcated portion thereof
50 is a crescent shaped link 16 having one pivot 17 connecting it to the short arm 14 and

another pivot 18 connecting it to a lever 19, 55 the lever 13 being of the first order and the lever 19 of the second order. The lever 19 preferably comprises two members connected to the respective sides of the link 16. These two members are pivoted to an ear 20 depending from the bar 9. Between the mem- 60 bers 19—19 is pivoted the head 21 of a screw 22 which is engaged by the screw threaded sleeve 23 rotatably fastened to the platen 24 by a loose connection 25 in a manner com- 65 mon to the so-called letter press, that is, by a grooved head 26 received in the socket 27, the groove being engaged by plates 28 fast to the platen 24. This construction is very common, however. The sleeve 23 carries 70 a hand wheel 29, by means of which the sleeve 23 can be turned on the screw 22 and thereby act as a jack to adjust the platen 24 to a given opening.

The purpose of providing the crescent 75 shaped link as the connection between the lever 13 and the lever 19 is to provide means whereby the pivot 18 will be past dead center or offset with respect to the pivot 17 when the handle arm 15 of the lever 13 is 80 in position to effect clamping, thereby preventing the upward pressure against the lever 19 from destroying the clamping effect of the lever mechanism consisting of the members 13, 16 and 19. This will be clearly 85 understood by reference to the accompanying drawings.

When the parts are assembled and it is desired to introduce prints onto the fixed platen or table 1, the lever arm 15 will be 90 swung to the position shown in Fig. 1 elevating the end of the lever 19 which is fastened to the link 16. The link can raise with the lever 13 because the slot 10 has been provided to prevent obstruction by the 95 bar 9.

In Figure 2 the handle 15 is illustrated as partly raised. When it is down against the beam 9 the pivot 17 will be slightly to the right of a line drawn through the center of 100 pivots 13' and 18 so that the toggle will be made and lock the platen in pressing position. When the handle is swung to the position shown in Figure 1 to open the press, the curved link 16 rests around the hub of 105 the hand lever 15 so as to bring the three pivots 13', 17 and 18 almost in line as in the pressing position except that pivot 17 is now

above pivot 13'. It should be understood that the pivot 17 does not move altogether in line, but sufficient to almost neutralize the toggle effect so that the platen is held up 5 when the handle is raised.

When the parts are in the position shown in Fig. 1, it is apparent that a sufficient space will exist between the platens 1 and 24 to introduce an adequate number of prints or 10 sheets between the platens 1 and 24, then the wheel 29 will be turned to move the platen toward the sheets. This position will be determined by lowering the handle 15 to determine whether the platen clamps against the 15 sheets tightly, and if not, raising the handle and again adjusting the wheel 29, it being apparent that for a given number of prints each time it is only necessary to operate the handle, and that the operation is quick and 20 very powerful. In order to remove the sheets it will be necessary only to swing the arm 15 up to the position shown in Fig. 1 again. It will therefore be apparent that I have provided a quick action means for effecting the initial compression and a slow 25 action means for positioning the platen prior to compression, the first being a relatively coarse adjustment and the second a fine adjustment, and it will be apparent of course that the heater which may be of any 30 appropriate construction, may be controlled through the switch 4. Attention is further called to the fact that the quick action mechanism includes a toggle arrangement which 35 is not only quick in application but very powerful in action.

What I claim and desire to secure by Letters-Patent is:—

1. A drying press comprising a base providing a fixed platen, vertical rods on the 40 base, a bar connecting the rods, a movable platen guided by the rods, an elbow lever pivoted to the bar and having an arm extending above the bar, a lever pivoted at one 45 end to a part beneath the bar, a crescent shaped link connecting the first lever to the

second, a screw nonrotatably carried by the second lever and a rotatable sleeve carried by the movable platen and having threaded 50 connection with the screw.

2. A drying press comprising a base providing a fixed platen, vertical rods on the base, a bar connecting the rods, a movable 55 platen guided by the rods, an elbow lever pivoted to the bar and having an arm extending above the bar, a lever pivoted at one end to a part beneath the bar, a link connecting the first lever to the second, a screw non-rotatably carried by the second lever 60 and a rotatable sleeve carried by the movable platen and having threaded connection with the screw.

3. A press comprising a fixed platen, a bar above it, a lever of the second order pivoted beneath the bar, an operating lever 65 of the first order pivoted above the bar, a movable platen connected to the first lever co-operating with the first platen, a crescent shaped link, and pivots connecting the link to the first and to the operating levers, the 70 pivot connecting the link and the operating lever being adapted to cross a vertical line passing through the center of the pivots connecting the link to the first lever and the pivot connecting the operating lever to the 75 bar when the operating lever is moved between its extreme positions.

4. A drying press comprising a fixed platen, a bar above the fixed platen, a toggle lever mechanism connected to the bar, a 80 lever of the second order above the fixed platen, pivoted at one end to the under side of the bar and at the other to the toggle mechanism, a screw carried by the lever attached thereto at an intermediate point, a 85 threaded member on the screw, a movable platen loosely connected to the threaded member and means for turning the threaded member.

In testimony whereof I affix my signature.

ARTHUR W. CAPS.