

UNITED STATES PATENT OFFICE.

EDWARD J. BROOKS, OF EAST ORANGE, NEW JERSEY.

SEAL-PRESS.

No. 813,079.

Specification of Letters Patent.

Patented Feb. 20, 1906.

Application filed December 26, 1902. Serial No. 136,721.

To all whom it may concern:

Be it known that I, EDWARD J. BROOKS, a citizen of the United States of America, and a resident of East Orange, in the State of New Jersey, have invented a new and useful Improvement in Ratchet Seal-Presses, of which the following is a specification.

This invention is additional to what are known as my "ratchet" seal-presses, patented May 6, 1884, by Letters Patent No. 298,284; September 22, 1885, No. 326,897; October 13, 1885, No. 328,106; October 14, 1890, No. 438,140; November 1, 1892, No. 485,370; October 20, 1896, No. 569,742, and December 7, 1897, No. 595,282. Another form of the same is shown at Figure 16 in Letters Patent No. 660,837, granted to me October 30, 1900, for "Improvement in seals."

The general object of the invention, in common with said patented inventions, is to insure securely fastening each seal at the pressing operation and its provision in the press with sharp and distinct lettering or other distinguishing-marks, if need be, and this is accomplished, as heretofore, by what has been termed a "ratchet attachment," which prevents reopening the dies after the pressing operation is begun until they have been closed to a predetermined extent sufficient to fully press the seal-disk or its equivalent, or, in other words, to render the seal perfectly press-fastened.

A distinctive object of the present improvement is to inclose the movable parts of the ratchet attachment within the movable die itself, and thus more effectively to protect them against obstruction by dust and against being tampered with.

Another object is to facilitate providing the cast-iron body of the press with a steel ratchet-rack.

Another object is to inclose and protect all the parts of the ratchet attachment by means of the main parts of the press themselves and within the original outlines of a preferred form of press.

A sheet of drawings accompanies this specification as part thereof.

Fig. 1 is a side elevation of my improved ratchet seal-press, showing the movable lever-handle in its two positions of rest by full and dotted lines, respectively. Fig. 2 is an enlarged longitudinal section through the head of the press with the dies closed. Fig. 3 is a fragmentary plan view projected from Fig. 2; and Figs. 4 and 5 are elevations, re-

spectively, of the movable die and ratchet-bar detached.

Like reference letters and numbers indicate like parts in all the figures.

The improved ratchet-press comprises two lever-handle castings 1 and 2, known, respectively, as the "handle" and "body" parts, which may be and preferably are externally of a known and approved pattern. The two form at one end of the press its lever-handles *a* and *b*. The handle part 1 may be and preferably is provided simply with a suitable eccentric or cam *c* at its pivot end. The body part 2 has a recessed head *d* integral with its pivot end and accommodates within it the other parts of the press. These parts are a bed-die 3, which may be integral with the head *d*, a movable die 4, a die-opening spring 5, a ratchet-bar 6, a reversible pawl 7 with its appurtenances, the latter consisting, preferably, of a small spiral spring 8 and a follower 9, a pair of pivots 10 and 11, by which the cam-carrying handle part and the pawl 7, respectively, are pivoted, and a pair of screws 12 and 13 or their equivalent for fastening the ratchet-bar 6 in place.

The bed-die 3 is preferably and conveniently constructed with the customary gage-stop *e*, projecting within the mouth 14 of the head *d* to facilitate locating the seal between the dies, and the opposing faces of the dies are or may be provided in customary manner with any desired distinguishing-marks.

The movable die 4 and the ratchet-bar 6 are in common cylindrical in form, and in common with the bed-die 3, if the latter be of steel and inserted into the head, are fitted to sockets readily drilled or cored out and milled from the top or handle edge of the body part. The movable die 4 is constructed with an upper end *f*, adapted to be acted on by the cam *c*, with a hole *g*, to receive the free end of the die-opening spring 5 and with a recess *h* perpendicular to its periphery to accommodate the pawl 7 and its appurtenances. It slides endwise under the action of said cam and opening-spring, respectively, and carries with it the pawl 7 by means of its pivot 11. The die-opening spring 5 is rigidly attached at its outer end by a screw 15 to the top of the body-part handle *b*, and its free end is rounded and loosely fitted to said hole *g* in the movable die 4. After the dies have been fully "closed," as in Fig. 2, the handles *a* and *b* can be separated, as in full lines in Fig. 1. In this "opening" movement

the spring 5 keeps the movable die 4 in contact with the periphery of the cam *c*, or, in other words, opens the dies preparatory to the next pressing operation.

5 The face of the ratchet-bar 6 is provided with a pair of reversing-notches 16 and 17, Fig. 5, and with ratchet-teeth 18 between said notches, arranged to intermesh with the pawl 7 during each pressing operation. Being cylindrical, as aforesaid, the ratchet-bar
10 is readily fitted with accuracy into a recess drilled or cored out and milled to receive it. It is also thus adapted to be adjusted if necessary to correct the meshing of its ratchet-
15 teeth with the pawl 7 and is readily fastened in place by the screws 12 and 13 or by a pin or pins interlocking therewith.

The pawl 7 is preferably and conveniently triangular, a flat or substantially flat base engaging with the follower 9. It may be centered within a round recess in the movable die 4 by a pair of washers 19, Fig. 4, and reverses on its pivot 11 at the respective ends of the pressing movement.

25 The movable die 4 may, if preferred, be reciprocated by the handle part of the press without the aid of a die-opening spring, as set forth, for example, in my specification, forming part of said Letters Patent No.
30 339,042, and other like modifications will suggest themselves to those skilled in the art.

Having thus described said improvement, I claim as my invention and desire to patent under this specification—

35 1. A seal-press having a movable die, means for reciprocating the same, and a ratchet device, for insuring complete movements of said die, comprising a pawl carried by said die and a ratchet-bar fixedly held in the body
40 of the press and arranged to intermesh with said pawl during each pressing movement.

2. A seal-press having a movable die, means for reciprocating the same, and a ratchet de-

vice, for insuring complete movements of said die, comprising a spring-pressed pawl 45 and a pivotal support therefor carried by said die and a ratchet-bar fixedly held in the body of the press and arranged to intermesh with said pawl during each pressing movement. 50

3. A seal-press having a movable die, means for reciprocating the same, and a ratchet device, for insuring complete movements of said die, comprising a spring-pressed pawl and a pivotal support therefor carried by
55 said die and a ratchet-bar constructed with a pair of reversing-notches and with ratchet-teeth between said notches arranged to intermesh with said pawl during each pressing movement. 60

4. A seal-press comprising a recessed body part, a spring-retracted movable die within said body part, a handle part pivoted to said body part and adapted to impart the pressing movements to said die, a spring-pressed pawl 65 and a pivot therefor carried by said die, and a ratchet-bar fixedly held within said body part and arranged to intermesh with said pawl throughout each pressing movement.

5. A seal-press comprising a body part having a cylindrical recess parallel with and in communication with the customary die-guiding recess, a spring-retracted movable die within the recess last named, a handle part pivoted to said body part and adapted to
75 impart the pressing movements to said die, a spring-pressed pawl and a pivot therefor carried by said die, and a cylindrical ratchet-bar fastened within said cylindrical recess and arranged to intermesh with said pawl throughout
80 each pressing movement, substantially as hereinbefore specified.

EDWARD J. BROOKS.

Witnesses:

THEO. D. GOTTLIEB,
M. E. KANALEY.