

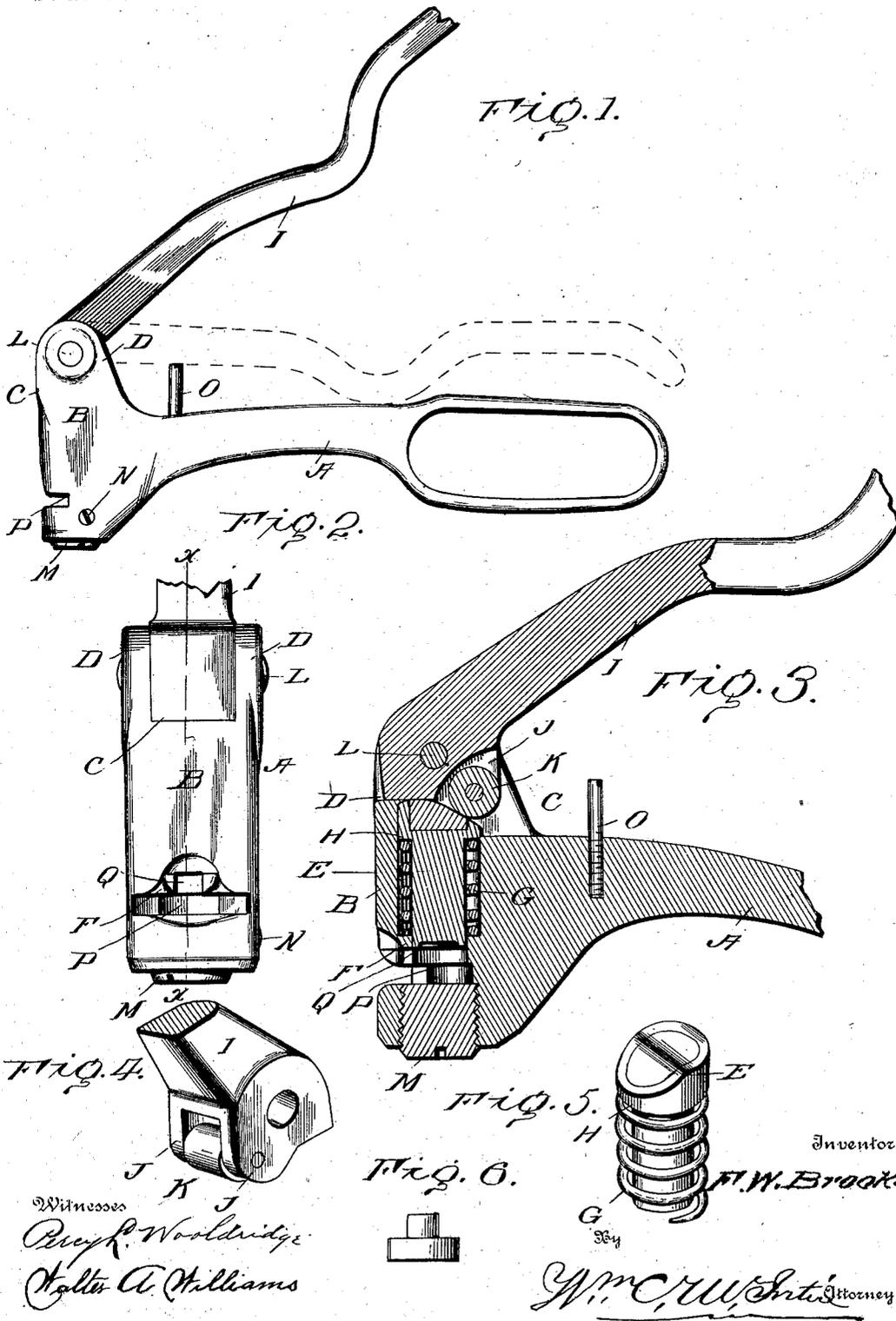
No. 748,474.

PATENTED DEC. 29, 1903.

F. W. BROOKS.
SEAL PRESS.

APPLICATION FILED MAY 29, 1901. RENEWED OCT. 23, 1903.

NO MODEL.



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UNITED STATES PATENT OFFICE.

FRANKLIN W. BROOKS, OF WASHINGTON, DISTRICT OF COLUMBIA.

SEAL-PRESS.

SPECIFICATION forming part of Letters Patent No. 748,474, dated December 29, 1903.

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To all whom it may concern:

Be it known that I, FRANKLIN W. BROOKS, a citizen of the United States, residing at Washington city, in the District of Columbia, have invented certain new and useful Improvements in Seal-Presses; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in seal-presses, and particularly to that class in which the organization of the mechanism is such that when used to compress an ordinary lead seal a complete and uniform impression must be made before the compressed seal can be removed from the press.

To secure the results above described, presses have been devised in which by the use of pawl-and-ratchet mechanism the handles or levers when started toward each other for causing the die to approach one another must be moved to such an extent as to produce complete and uniform impressions before they are permitted to return to their normal positions. An example of such a press is found in Letters Patent No. 650,807, granted to me on the 29th day of May, 1900, and in which reversible pawls pivoted within the head of the press cooperate with ratchets on the inside faces of the vibrating lever or handle which operates the reciprocating or movable die. In all presses of this kind the presence of the pawl-and-ratchet devices necessarily add to the first cost of the press and also involve repairs to a greater or less extent. These presses are for the most part used by railroad companies and are furnished and kept in repair free of cost by contractors who furnish the seals to said companies, and hence the original cost and all repairs are matters of great consideration.

My invention has for its object to provide a press which will produce complete and uniform impressions and without the employment of any pawl-and-ratchet or other mechanism for controlling the movement of the levers or handles toward or from each other and which shall be economic of construction

and requiring no repairs in respect of such movement of the levers or handles.

The principle involved in all presses devised to secure complete and uniform impressions of the lead seal lies in the fact that after the compression of the seal has begun said seal cannot be removed from the press until the compression has been completed, thus requiring a complete movement of the vibrating lever-handle and the die operated thereby.

My invention consists of a sealing-press having a stationary lever-handle and a head formed integral therewith provided with a stationary adjustable lower die and a vertically-reciprocating die, the latter operated by a vibrating lever-handle pivoted within the head of the press, the head of said press being formed with a gateway intermediate of the faces of the two dies, said gateway being of varying widths at different localities and bearing such predetermined and proportionate relation to the movement of the reciprocating die that when the latter has begun to compress and flatten the stem or body of the soft-metal seal the latter cannot be withdrawn from the press and out of the gateway until said seal has been completely compressed and the proper impressions have been made thereon, as will be hereinafter and in detail described.

My invention further consists in providing the upper oblique or beveled face of the reciprocating die with a recess and locating therein a steel or other similarly hard metal bearing-surface and providing the movable lever-handle with an antifriction-roller adapted to contact with the hard-metal face of the die.

In order that those skilled in the art to which my invention appertains may know how to make and use my improved press and to fully understand its advantages, I will proceed to describe its construction and operation, referring by reference characters to the accompanying drawings, in which—

Figure 1 is a side view of a press embodying my invention. Fig. 2 is a front elevation showing the form and proportions of the gateway or entrance for the seal. Fig. 3 is a central vertical section taken on the line xx of

Fig. 2. Fig. 4 is a side view of the vibrating lever-handle. Fig. 5 is a perspective view of the movable or reciprocating die and its spring, and Fig. 6 is an elevation of such a seal as my improved press is designed to compress.

Similar characters of reference indicate like parts in the several figures of the drawings.

A is the lower or stationary lever-handle, having formed integral therewith a head B, provided at its upper end with a recess C and ears or lugs D. The head is bored vertically and centrally to receive a movable or reciprocating die E and formed with an annular shoulder F to constitute a seat for the lower coil of a spring G, surrounding the reduced body of the die E, which is formed with an annular shoulder H, against which the upper coil of the spring G bears.

I is the movable or vibrating lever-handle, formed with lugs or ears J, between which is pivoted an antifriction-roller K, adapted to travel over the oblique upper face of the die E. The movable lever-handle I is pivoted within the lugs or ears D of the head B by a pin L.

The lower end of the head A is bored vertically to receive the lower stationary die M, which is adjustably secured within its seat by a screw-thread and is held in any given adjustment by a set-screw N, and O is an adjustable stop threaded into the lower or stationary lever-handle to limit the downward movement of the upper vibrating lever-handle in an obvious manner.

The front or face of the head A is formed with a seal-entrance or gateway leading to the central vertical bore or seal-space between the upper and lower dies. This gateway, as clearly seen at Fig. 2, is of hat shape, the lower portion being wider than the upper portion, or, in other words, a comparatively broad horizontal portion P to receive the head of a soft-metal seal-rivet and an upper comparatively narrow vertical portion Q to receive the shank of a soft-metal seal-rivet. This hat-shaped gateway not only necessitates the presentation of the rivet to the action of the dies in a given position, as fully described in the Letters Patent hereinbefore referred to, but the proportions of the entrances P and Q relatively to each other and to the vertical movement of the reciprocating die E are predeterminedly such that when by the partial downward movement of the die E the shank of a soft-metal seal-rivet is compressed and expanded laterally the rivet so expanded cannot be withdrawn through the vertical portion P of the gateway, and it becomes necessary to continue the compression of the seal-rivet until it is reduced in cross-section to something less than the height of the lower horizontal portion Q of the gateway before the said seal-rivet can be withdrawn from said lower portion of the gateway. It will therefore be obvious that after

the downward movement of the upper reciprocating die E has been begun it must be continued and completed before the seal can be withdrawn from the press, and consequently the impressions produced by the action of the dies must of necessity be complete and uniform.

In order to facilitate the introduction of a seal-rivet into the gateway P Q of the press, the metal surrounding said gateway is beveled toward the gateway, as clearly shown by the shaded lines at Fig. 2.

By reference to Fig. 3 it will be seen that the upper reciprocating die E is formed at its upper beveled end with a recess or seat 1, within which is located and secured in any desired manner a plug or block 2 of hard steel to constitute the bearing-surface for the antifriction roller K, thus rendering it unnecessary to make the entire body of the die of high grade and expensive metal.

From the construction shown and described it will be seen, as hereinbefore stated, that my improved press, while of economic and simple construction, has all of the advantages of the more complicated and expensive ratchet seal-press and that the same is not liable to get out of order or to require repair.

Having described the construction and operation as well as the advantages of my improved press, what I claim as new, and desire to secure by Letters Patent, is—

1. A seal-press composed of a lower or stationary handle-lever and head, the latter bored to receive a reciprocating die and a stationary die, and provided with a gateway leading to the space between the dies, and said gateway being of hat shape and of such predetermined dimensions as to receive a hat-shaped seal and to prevent its withdrawal after partial compression and until complete and uniform compression has been effected; a vibrating lever pivoted in the head of the stationary handle and adapted to act upon a reciprocating die movable vertically below the lower terminus of the crown portion of the hat-shaped gateway, substantially as for the purpose set forth,

2. In a seal-press, in combination with the stationary handle and die supporting and carrying head, and a reciprocating die having its upper end beveled and recessed vertically and provided with an inserted beveled block, a vibrating handle pivoted within the head and provided with a freely-revoluble roller adapted to travel over the beveled block in the end of the reciprocating die, substantially as hereinbefore set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANKLIN W. BROOKS.

Witnesses:

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