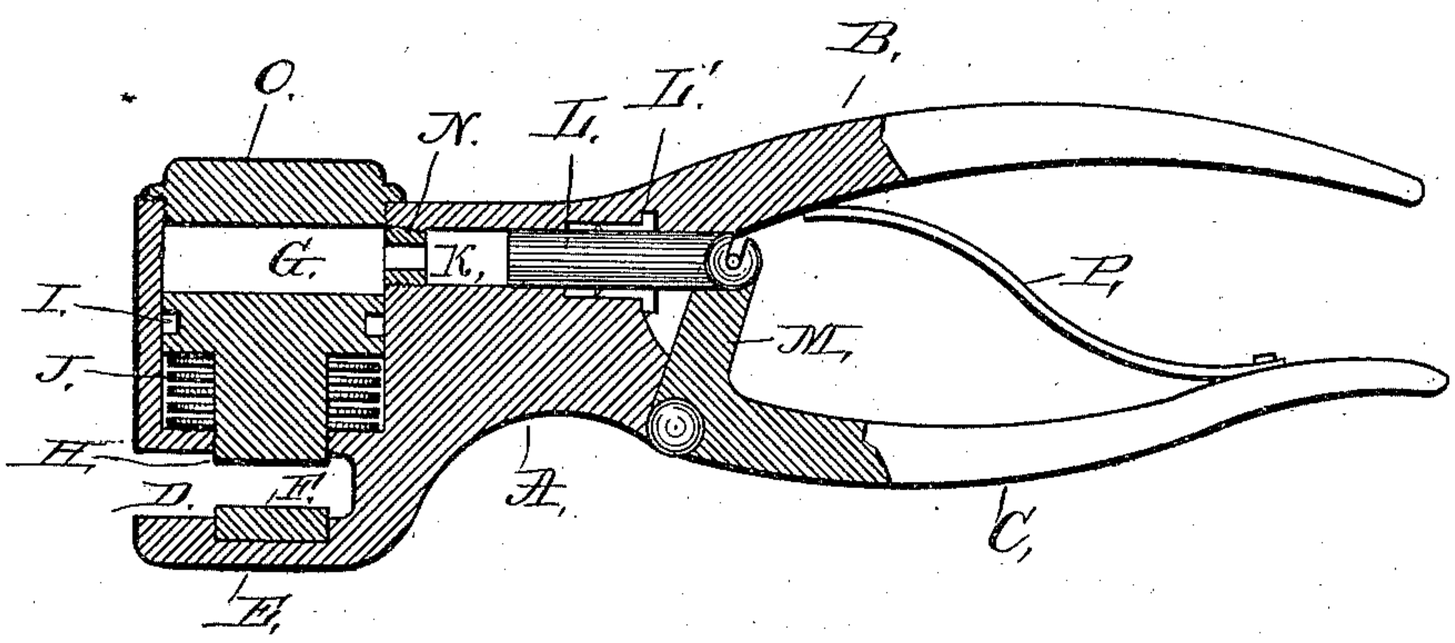
(No Model.)

G. C. TEWKSBURY.

HAND SEAL PRESS.

No. 343,780. Patented June 15, 1886.



Witnesses.
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UNITED STATES PATENT OFFICE.

GEORGE CLARANCE TEWKSBURY, OF NEW YORK, N. Y., ASSIGNOR OF ONE-FOURTH TO WILLIAM C. McINTIRE, OF WASHINGTON, D. C.

HAND SEAL-PRESS.

SPECIFICATION forming part of Letters Patent No. 343,780, dated June 15, 1886.

Application filed February 18, 1886. Serial No. 192,333. (No model.)

To all whom it may concern:

Be it known that I, GEORGE CLARANCE TEWKSBURY, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Hand Seal-Presses, of which the following is a specification.

My invention relates to certain new and useful improvements in that class of implements known as "hand seal-presses," designed for compressing lead seals upon securing-wires and impressing upon such seals at the same time any desired designating characters.

As at present designed, the implements now in use, in order to secure the necessary power to effectually compress the lead seal upon the wire and to impress any given design upon the face of said seals, are heavy and cumbrous in construction and difficult of manipulation, requiring, usually, the use by the operator of both hands, rendering it not only awkward and difficult to properly present the seal to the action of the dies, but also necessitating at night or in dark places the assistance of an attendant to hold a lamp to enable the operator to successfully use the implement. Realizing the disadvantages experienced in such implements, various improvements have been suggested looking to the reduction of size while maintaining sufficient power to be applied in using the implement; but in all such devices, so far as I am aware, the power to be applied is derived through the medium of purely mechanical leverages, and as a result the power thus obtained is always in just proportion to the size of the parts of the device, and require, to a great degree, a much larger expenditure of physical force than is desirable.

My invention has for its object to produce a seal-press which, while limited to small and desirable proportions, shall be capable of exercising a great degree of compressive power through the medium of a minimum amount of applied physical force; and with this end in view my invention consists in a seal-press such as referred to having one fixed and one movable die, a reciprocating plunger or piston, and a pair of handles for operating the said movable die through the medium of a body of water or other fluid contained between its upper surface and the plunger; and my invention further consists in the details of construction hereinafter set forth and specifically claimed for carrying out the generic feature of my invention.

In order that those skilled in the art to which my invention pertains may know how to make and use the same, I will proceed to describe its construction and operation, referring by letters to the accompanying drawing, which represents in longitudinal section a hand seal-press embodying the features of my invention.

In this drawing, A represents the stock or body of the press, having formed integral therewith a rigid handle, B, and having pivotally connected therewith a vibrating handle, C. The stock A is formed with a recess or opening, D, and a base or support, E, adapted to receive and hold in a fixed position a die, F. That portion of the stock above the recess D is cored out to form a chamber, G, adapted to receive, and within which is located, a movable die, H, which latter is formed with an annular recess or groove, I, adapted to receive a water-tight packing. The lower portion of the die H is reduced in diameter to about the size necessary to properly embrace the seal to be compressed, and which also provides a space between said portion of such die and its chamber in the stock A for the reception of a coil-spring, J, which operates to return the die to its normal position after it has performed its function. The chamber G, above the movable die H, communicates with another water or fluid chamber, K, in which a moving plunger or piston, L, is fitted with a suitable stuffing-box, L′, to secure a water-tight joint. The outer end of this piston L is pivotally connected with an arm, M, formed on or otherwise suitably connected with the movable or vibrating handle C, in such manner that pressure upon the handle C and its approach toward the other handle, B, will cause the piston L to move along in its chamber and exert pressure upon the head of the movable die H through the medium of the interposed body of water, in a manner well understood by those familiar with hydraulic appliances.

In order that the greatest amount of pressure may be obtained from a piston of minimum proportion, I propose partially choking the

exit of the chamber K by a bushing, N, which may be screwed to its seat. The chamber G extends entirely through the stock A, as clearly shown, to facilitate its formation, and its upper end is fitted with a screw cap or plug, O, the removal of which permits of the ready insertion of the movable die H, with its spring J, and the introduction of the water or other fluid used to secure hydraulic pressure.

P is a spring arranged between the handles B C in any well-known manner, to assist in returning the movable handle C and plunger or piston L to their normal operative positions.

It will of course be understood that I do not confine myself to any special method or means for securing the proper water-tight joints in either the die H or the piston L, as they may be fitted in any suitable manner to secure the object sought; nor do I wish to be confined to the detail in the construction of the handle C and its connection with the outer end of the piston L, as my invention contemplates any suitable form of construction and connection which will secure the proper reciprocation of the piston.

The water-chamber within which the piston L reciprocates may, if thought desirable, be supplied with a suitable valve to secure, in the manner well known to manufacturers, greater power; but I prefer to dispense with such valve whenever sufficient power can be obtained without it.

From the construction shown it will be seen that the dies F H may be readily removed and others having differently-fashioned operative faces substituted, and that by the substitution for the dies F H of dies having the properly-constructed faces a very desirable eyelet or button fastening implement may be made, and I do not therefore wish to in any manner limit myself to any special conformation of the operative faces of the dies.

What I claim as of my invention, and desire to secure by Letters Patent, is—

1. The stock or body A, provided with the handles B C, and formed with fluid-chambers G K, in combination with the fixed and movable dies F H and reciprocating piston L, substantially as and for the purpose hereinbefore set forth.

2. The chamber K, choked or reduced at one end by a screw-bushing, N, in combination with a reciprocating piston, L, and suitable operating mechanism, M C, substantially as described.

3. The stock A, formed with the handles B C, seal-recess D, and water or fluid chambers G K, in combination with the stationary and movable dies F H, spring J, and piston L, substantially as shown and described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

GEORGE CLARANCE TEWKSBURY.

Witnesses:

JULIUS OFFENBACH,

ADOLPH L. SANGER.