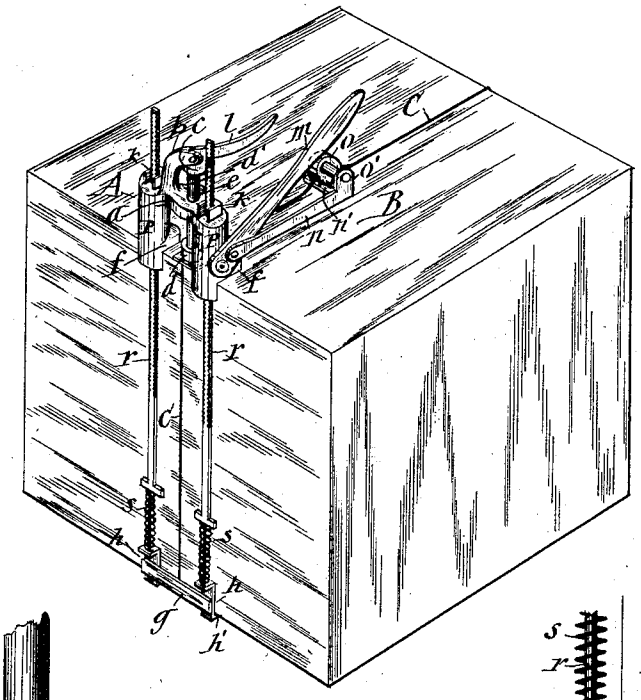
(No Model.)

A. J. PHELPS.

APPARATUS FOR SEALING PACKAGES.

No. 374,372. Patented Dec. 6, 1887.

Fig. 1



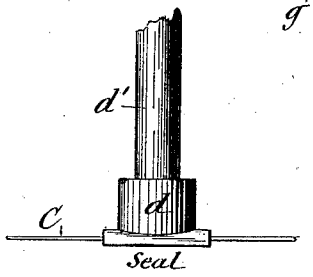


Fig. 5

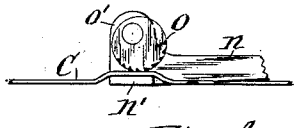


Fig. 4

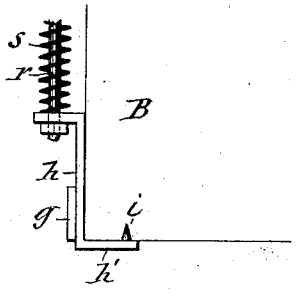


Fig. 2

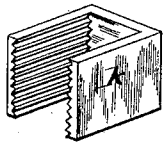


Fig. 3

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UNITED STATES PATENT OFFICE.

ANDREW J. PHELPS, OF SYRACUSE, NEW YORK.

APPARATUS FOR SEALING PACKAGES.

SPECIFICATION forming part of Letters Patent No. 374,372, dated December 6, 1887.

Application filed September 21, 1887. Serial No. 250,299. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. PHELPS, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Apparatus for Sealing Packages, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to presses or apparatus designed for applying to the binders of packages or boxes metallic seals of the style shown in United States Patents Nos. 358,880 and 368,780, granted to me, respectively, March 8, 1887, and August 23, 1887, or analogous metallic seals, and has also reference to the apparatus for which I have obtained Letters Patent No. 358,879, dated March 8, 1887, over which my present invention is a specific improvement, rendering the apparatus more convenient and efficient in its operation, in that it dispenses with the use of a hammer or mallet or other separate tool for applying the requisite pressure to the seal-die, and also affords a more secure hold for the apparatus on the package or box during the operation of applying the seal.

In the annexed drawings, Figure 1 is a perspective view of my improved sealing apparatus applied to a box. Fig. 2 is an enlarged detached side view of the foot of the apparatus. Fig. 3 is an enlarged detached isometric view of one of the clamps which hold the tie-rods of the apparatus in their requisite operative positions. Fig. 4 is a side view of the gripping end of the arm by which the binder is drawn taut around the box, and Fig. 5 is an enlarged side view of the die by which the seal is impressed.

Similar letters of reference indicate corresponding parts.

A represents a metallic frame composed of tubular posts P P, arranged parallel side by side a short distance apart, and united at their upper ends by a cross-bar, *a*, from which rises a standard, *b*, all of said parts being preferably formed in one piece of cast metal.

Vertically through the cross-bar *a* extends an eye, *e*, in which slides the shank *d'* of the die *d*, by which the seal receives the required impression. On the standard *b* is hinged a lever, *l*, which is formed with a cam or eccentric, *c*, by which said lever bears on top of the shank *d'* of the die.

The posts P P are formed with laterally-projecting feet *f f*, by which they rest on the top edge of the box B, as shown in Fig. 1 of the drawings. Vertically through each post P is extended a strap or rod, *r*, to the lower end of which is connected a gripper, *h*, formed with a horizontal foot, *h'*, which is adapted to be introduced under the bottom edge of the box B, and is provided with a spur, *i*, which engages the bottom of the box and affords a secure hold thereon for the said foot. The two grippers *h h* are connected to each other by a strap, *g*, which serves to maintain said grippers a uniform distance apart. The straps or rods *r r* have serrated or toothed longitudinal edges, and by means of bifurcated keys *k k*, having correspondingly-serrated jaws embracing the aforesaid straps or rods on top of the posts P P, said straps or rods are held taut, so as to bind the grippers *h h* and posts P P, respectively, on the bottom and top of the box.

In order to guard against breakage of either the frame A or grippers *h h* by the frame accidentally falling and sliding down on the straps *r r*, I place around each of said straps above the gripper *h* a spiral spring, *s*, which serves as a cushion to relieve the frame and gripper from the concussion incident to the aforesaid accidental fall of the frame A. To the side of one of the posts P, I pivot the lever *m*, to which is hinged the arm *n*, the free end of which is provided with a suitable gripper for grasping the binder C in tightening the same around the box B, as hereinafter more fully explained. The gripper on the arm *n*, I prefer to form of a foot-piece, *n'*, projecting from the arm and under the binder, and a cam or eccentric, *o*, pivoted to a post, *o'*, on the arm *n*, which cam or eccentric has a serrated face, between which and the underlying foot-piece *n'* the binder is grasped, as illustrated in Fig. 4 of the drawings. Said cam or eccentric, having its longer radius at the side toward the lever *m*, causes the former to bear on the binder with greater force as the pressure on the lever is increased, and thus the binder is securely held between the cam or eccentric and underlying foot-piece *n'* during the operation of drawing the binder toward the sealing apparatus.

The operation of my improved sealing ap-

paratus is as follows: The binder C, which is either a wire or metallic hoop or band, is extended around the box B, the metallic seal *s* is placed under the binder at or near the top edge of the box, and one end of the binder is secured to a nail, or screw, or staple driven into the box and either through the seal or in proximity thereto. Then the frame A is mounted on the top edge of the box in such a position as to bring the seal between the posts P P. The frame is secured in said position by slipping the feet *h' h'* of the grippers *h h* under the bottom edge of the box, then drawing up the straps *r r* and applying the keys *k k* to the straps on top of the posts. Then the loose end of the binder is grasped between the eccentric *o* and underlying footpiece *n'*, and by drawing the lever *m* toward the frame A the aforesaid end of the binder is drawn in the same direction, and after passing it across the top of the seal and tying it to the aforesaid nail or analogous fastening device the binder is covered or inclosed, either by folding the edges or flaps of the seal over upon the binder or by placing upon the binder a soft-metal disk and folding the edges of the seal upon the disk, as illustrated in my prior patents Nos. 358,880 and 368,780, hereinbefore referred to. After the binder has thus been enveloped in the soft metal sufficient pressure is applied to the lever *m* to cause the die to compress the seal upon the binder and leave the impress of the die on the seal. After the sealing operation is completed the apparatus is readily removed from the box by releasing the binder from the gripper on the arm *n* and removing the keys K K from the straps *r r;* then the frame A and gripper *h* can be removed from the box B.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An apparatus for sealing packages, comprising a frame adapted to be seated on one edge of the package, a seal-die movably connected to said frame, grippers adapted to engage the opposite edge of the package, and straps or rods connecting the said grippers with the aforesaid frame, as set forth.

2. An apparatus for sealing packages, comprising a frame adapted to be seated on one edge of the package, grippers adapted to engage the opposite edge of the package, straps connecting the grippers with the frame, a die movably connected to the frame, and a lever pivoted on the frame and adapted to apply pressure to the die, as set forth and shown.

3. In combination with grippers engaging the bottom edge of the box, and straps or rods rising from said grippers, the frame A, consisting of the tubular posts P P, formed with feet *f f*, cross-bar *a*, uniting said posts, the die *d*, guided on said cross-bar, and keys K K, for fastening the aforesaid straps on the posts, substantially as described and shown.

4. In combination with the grippers engaging the bottom edge of the box, and straps rising from said grippers, a frame mounted on the top edge of the box and adjustably connected with the aforesaid straps, a lever pivoted on said frame, an arm hinged on the lever, and a gripper connected to said arm and adapted to grasp the binder, substantially as set forth.

5. In combination with the grippers engaging the bottom edge of the box, straps rising from said grippers, the die-carrying frame mounted on the top edge of the box and movably connected with the aforesaid straps, and cushions connected to the straps above the grippers, substantially as and for the purpose specified.

In testimony whereof I have hereunto signed my name, in the presence of two witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 19th day of September, 1887.

ANDREW J. PHELPS. [L. S.]

Witnesses:
H. P. DENISON,
C. L. BENDIXON.