A. R. BINGHAM.

BOX FASTENER.

APPLICATION FILED MAY 7, 1915.

1,193,502. Patented Aug. 8, 1916.

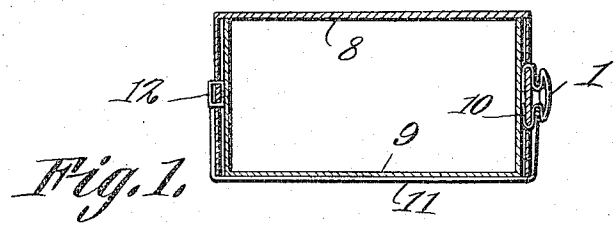


Fig. 1.

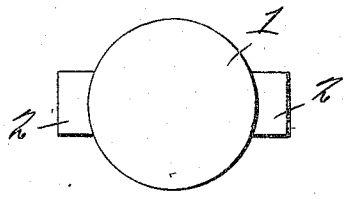


Fig. 2.

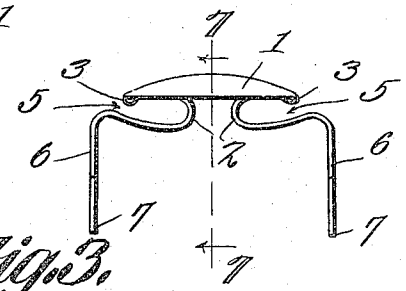


Fig. 3.

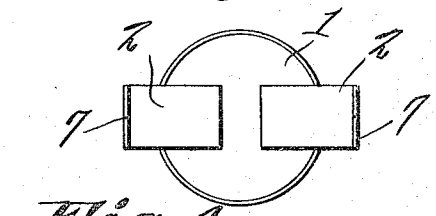


Fig. 4.

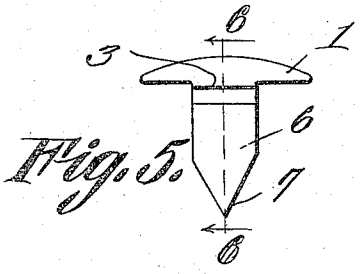


Fig. 5.

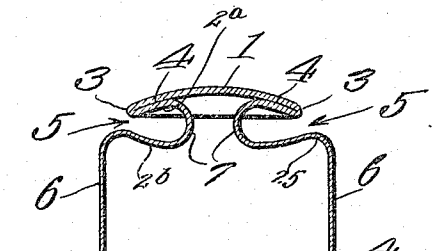


Fig. 6.

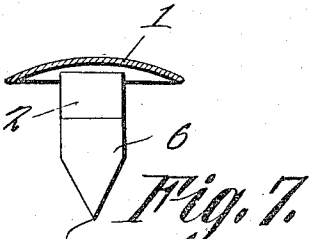


Fig. 7.

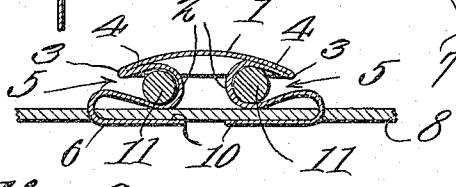


Fig. 8.

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UNITED STATES PATENT OFFICE.

ALLEN R. BINGHAM, OF WEBSTER, MASSACHUSETTS.

BOX-FASTENER.

1,193,502. Specification of Letters Patent. Patented Aug. 8, 1916.

Application filed May 7, 1915. Serial No. 26,574.

To all whom it may concern:

Be it known that I, ALLEN R. BINGHAM, a citizen of the United States, residing at Webster, in the county of Worcester and State of Massachusetts, have invented a new and useful Box-Fastener, of which the following is a specification.

The device forming the subject matter of this application is a fastener, adapted to be assembled with a box or like package. A binder, ordinarily in the form of a cord or lace is secured to the box and the free end of the binder is given a turn or two around the fastener, in a common and well known manner.

One object of the present invention, in view of the foregoing, is to fashion the fastener in a single piece, comprising in a one piece structure, a concavo convex, disk like head, underlying binder receiving loops bearing against the under face of the head, and clenching prongs projecting from the ends of the loops, thereby simplifying and strengthening the structure materially.

A further object of the invention is so to shape the loops that, when the fastener is assembled with a box, reduced, binder holding throats will be formed at the outer ends of the loops.

A further object of the invention is to provide a fastener of the type above mentioned in which the loop-shaped, binder receiving elements reinforce the disk like head, first, through an integral connection therewith, and secondly, because portions of the loops bear directly against the under face of the head.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawing:—Figure 1 shows in section, a box wherewith the fastener forming the subject matter of this application has been assembled; Fig. 2 is a top plan of the fastener; Fig. 3 is a side elevation of the fastener; Fig. 4 is a bottom plan of the fastener; Fig. 5 is an end elevation of the fastener; Fig. 6 is a section on the line 6—6 of Fig. 5; Fig. 7 is a section on the line 7—7 of Fig. 3; Fig. 8 is a view similar to Fig. 6, but showing the prong portions of the fastener clenched down upon one part of the box, the binder being in place and being shown in section.

The fastener forming the subject matter of this application preferably is fashioned from metal throughout and embodies, in a one-piece structure, a concavo-convex, disk-like head 1, preferably but not necessarily of circular outline, and a combined box engaging and binder holding means formed integrally with the head 1. Underlying, binder receiving loops 2 are formed integrally with opposed portions of the head 1, as indicated at 3 the outer portions of the loops 2 bearing, as indicated at 4, against the under face of the head. Owing to the fact that, as shown at 3, the loops 2 are formed integrally with the head 1, and owing to the further fact that as indicated at 4, portions of the loops 2 bear against the under face of the head, an unusually strong reinforcement is provided. The outer portions of the loops 2 are contracted, to form restricted, binder holding throats 5. Formed integrally with the loops 2 are angularly disposed, bendable, clenching prongs 6 which may be terminally pointed as shown at 7.

The application of the invention contemplates the use of telescoped box members 8 and 9. The prongs 6 of the fastener are thrust through one side wall of the outer box member 8 and are clenched down upon the inner face of the said wall, as indicated at 10, the outer face of the said wall bearing against the inner arms of the loops 2, as clearly indicated in Fig. 8. The fastener, therefore, is firmly held upon the member 8 of the box. A binder 11 is shown, the same being in the form of a cord or lace. One end of the binder is attached by a securing device 12 of any desired sort to one wall of the member 8 of the box, the binder 11 being extended across the end of the member 9 of the box, and the free extremity of the binder being given a turn or two around the fastener forming the subject matter of this ap-

plication. As clearly shown in Fig. 8 of the drawings, the fastener 11 is received in the loops 2, and owing to the presence of the restricted throats 5, an accidental detachment of the binder from the fastener will be found to be difficult.

Briefly considered, the binder fastener herein disclosed comprises in a one-piece structure, a concavo-convex disk-like head 1, underlying, binder receiving loops 2 embodying upper arms 2^a and lower arms 2^b, and angularly disposed clenching prongs 6 projecting from the outer ends of the lower arms 2^b. The upper arms 2^a bear as shown at 4 at their outer ends against the under surface of the head 1 adjacent its periphery, the upper and lower arms being disposed in converging relation, as clearly shown in Fig. 6, thereby to form restricted throats 5 for the loops. The lower arms 2^b are outwardly extended as shown at 25 beyond the periphery of the head 1 to form guiding means for the throats 5.

Having thus described the invention, what is claimed is:—

A binder fastener for boxes, comprising in a one piece structure, a concavo-convex disk-like head, underlying, binder receiving loops embodying upper and lower arms, and angularly disposed clenching prongs projecting from the outer ends of the lower arms, the upper arms bearing at their outer ends against the under surface of the head adjacent its periphery, the upper and lower arms being disposed in converging relation, thereby to form restricted throats for the loops, and the lower arms being outwardly extended beyond the periphery of the head to form guiding means for the throats.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ALLEN R. BINGHAM.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."