(No Model.)

R. M. GARDNER.

SASH CORD FASTENER.

No. 469,691. Patented Mar. 1, 1892.

Fig. 1.

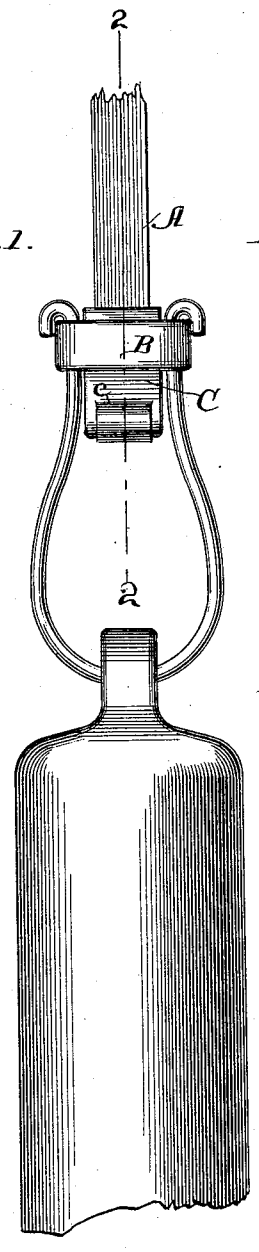


Fig. 3.

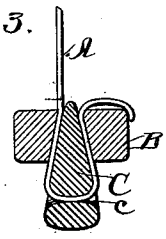
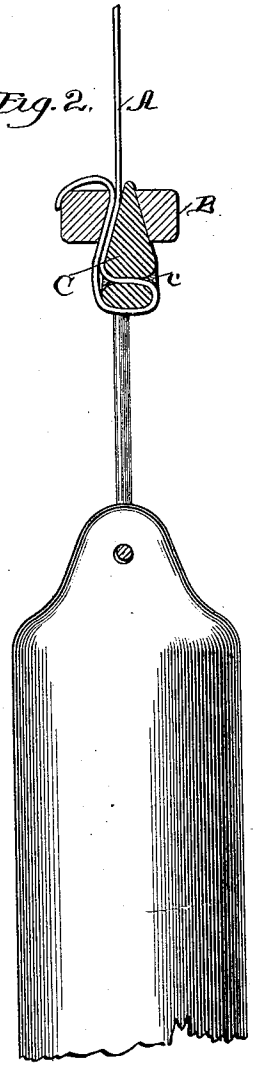


Fig. 2.



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UNITED STATES PATENT OFFICE.

RICHARD M. GARDNER, OF CHICAGO, ILLINOIS.

SASH-CORD FASTENER.

SPECIFICATION forming part of Letters Patent No. 469,691, dated March 1, 1892.

Application filed June 15, 1891. Serial No. 396,233. (No model.)

To all whom it may concern:

Be it known that I, RICHARD M. GARDNER, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sash-Balances, of which the following is a specification.

My invention relates to an end fastening for metal ribbons, primarily designed to enable the same to be secured to the sash and to the balancing-weights in a sash-balance.

It is in the nature of an improvement upon devices of the same sort shown and fully described in patents formerly granted to me in Nos. 441,757, dated December 2, 1890, and 450,667, dated April 21, 1891. In both of these patents the main features of the fastening device consist in a block containing a flaring slot and a wedge fitted to said slot, the ribbon being secured to the same by passing it through the slot from the narrow end thereof, then looping it back upon itself and back through the slot, inserting the wedge in the loop, and drawing it tightly into the slot. While the above devices have been found exceedingly satisfactory, yet there is some objection to the use of a loose wedge, and it is my purpose to overcome this objection in my present invention, and also to still further remove all possibility of the slipping of the ribbon in the fastening. I accomplish the first of said objects by providing the wedge with a slot or eye through which the ribbon is passed before the loop is formed and which prevents the wedge from falling out of the ribbon. The second object is attained by a change in the manner in which the ribbon is applied, said change resulting in the formation of a reverse bend therein.

In the drawings, Figures 1 and 2 illustrate my fastening in its perfected form, Fig. 1 being a side view of the same adapted for attachment to a sash-weight and Fig. 2 a section in line 2 2 of Fig. 1. Fig. 3 illustrates a modification which has a portion, but not all, of the advantages of the preferred form.

In the figures, A is a flat metal ribbon, B a metal block containing a flaring slot, and C a wedging-body, preferably double-wedge shaped and fitted to the slot. In the lower portion of the wedge C a slot *c* is formed, of sufficient width to receive the ribbon A.

In applying the fastening the ribbon is inserted into the narrow end of the slot in the block, passed through the latter, then passed through the slot *c* in the wedge and looped backward through the slot in the block, and the wedge then drawn tightly into the latter.

In Fig. 3 the ribbon is seen as encircling the greater portion of the wedge and embraced between both sides of the same and the block B, the fastening thus secured being substantially the same as that shown in my former patents above referred to, the improvement being that in handling the fastening to put it together or take it apart the wedge C cannot fall out of the loop in the ribbon, an accident which is often very annoying, inasmuch as the wedge will frequently fall into inaccessible places and be lost.

Figs. 1 and 2 illustrate an additional improvement, in which the ribbon A, after being passed through the slot c, is bent backward around the base of the wedge, and then upward and through the slot in the block, upon the same side as the main or supporting strand of the ribbon. This enables an additional bend in the ribbon to be formed, and at the same time brings the two strands of the ribbon together, causing the short end thereof to afford some protection to the supporting-strand at the point where it leaves the block B.

I claim as new and desire to secure by Letters Patent—

A fastening for metal ribbons, consisting of a block containing a flaring slot, a slotted wedging-body adapted to enter the slot in the block, and a metal ribbon secured to the same by passing it through the slot in the block from the narrow to the wide end, thence through the slot in the wedging-body, thence back through the slot in the block, and then drawing the wedging-body tightly into the latter slot, substantially as described.

RICHARD M. GARDNER.

Witnesses:
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