

(No Model.)

W. A. FORD.
SASH BALANCE.

No. 421,828.

Patented Feb. 18, 1890.

Fig: 1

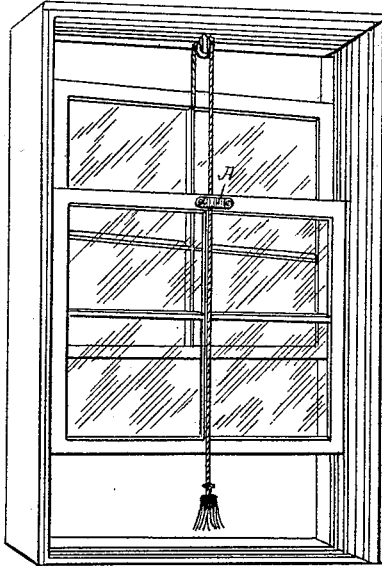


Fig: 2.

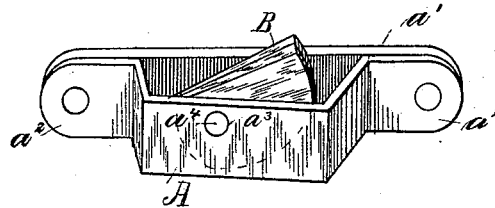


Fig: 3.

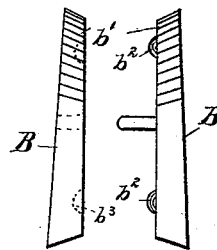


Fig: 4.

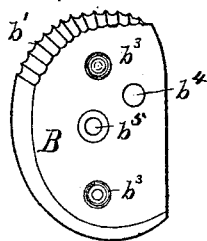
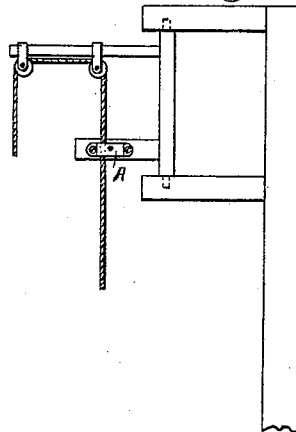


Fig: 5.



Witnesses:

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SASH-BALANCE.

SPECIFICATION forming part of Letters Patent No. 421,828, dated February 18, 1890.

Application filed June 21, 1889. Serial No. 315,118. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. FORD, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Cord-Clamps; 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.

This invention relates to "cord" or "line" clamps, and is especially intended as an improvement upon the "line-clamp" heretofore patented to me and numbered 125,038, to which reference may be had.

In the line-clamp above referred to the eccentric was constructed of metal and cast in one piece, the pivot-hole being subsequently drilled therein, which construction was expensive to make, and, as compared with the construction of eccentric forming the subject-matter of this present invention, had many imperfections—as, for instance, in casting a grooved serrated edged eccentric in one piece the serrations would be sand-clogged and a rough and imperfect edge would be the result, which required subsequent refinishing; also, in consequence of the tapered sides of the eccentric, it was a very difficult task to gage and drill the pivot-holes uniformly and accurately, and the whole operation of manufacture utilizing much time and rendering the construction an expensive and somewhat unsatisfactory one.

The chief objects of my present invention are to produce a line-clamp which shall be cheap, durable, and simple in construction and effective in operation, and to so construct the eccentric as to obviate refinishing and drilling, as heretofore.

With these objects in view my invention consists, essentially, in the combination, with the cover or casing of a cord or line clamp, of a two-part eccentric, each part of which is beveled at its edge (oppositely) and corrugated or serrated, and has pivot-holes cast therein, substantially as hereinafter described, and set forth in the claim.

It also consists in certain details of construction and in the combination and arrangement of the several parts of the cord-clamp,

substantially as hereinafter described, and set forth in the claim.

Figure 1 represents my improved cord-clamp as applied to a window-sash; Fig. 2, a perspective view of the same detached; Fig. 3, an edge view of the two halves of the cord-clamping eccentric, showing them separated; Fig. 4, a detail in plan view of one part of the eccentric; and Fig. 5 illustrates my improved cord-clamp as attached to a swinging arm for hoisting purposes.

The cord-clamp consists of the two-part casing A, having suitable ears a^2 , with screw-holes therein, through the medium of which it is attached to the place where it is to be used, and the eccentric B, having its periphery grooved and corrugated or serrated, as shown at b' . The casing consists of a straight back piece a' and a box-like tapering cover A, both of which parts will preferably be constructed of cast metal with a pivot-hole a^3 formed in their upper edges, as shown, through which the eccentric-pivot a^4 extends, which construction is very similar to that shown in the patent before referred to.

The eccentric B, which is pivoted between the back a' and cover A of the casing, is constructed in two pieces, it being divided centrally and longitudinally, and each piece is cast with an outwardly-beveled and diagonally-corrugated peripheral edge b' in such relation that when placed together they form a V-shaped corrugated groove, which groove forms the "bite," to clamp the rope between the eccentric and cover, in the manner shown in the drawings.

Cast integral with one of the parts of the eccentric upon its inner face are a series of teats b^3 , which extend, when the parts are connected into correspondingly-shaped recesses b^3 , formed by casting in the adjacent face of its fellow part. The pivot-holes b^4 in the two halves of the eccentric are formed by casting near the upper forward edge, and the central rivet-hole b^5 is also formed by casting, which construction entirely obviates subsequent drilling. If desired, instead of corrugating the beveled edges of the two parts of the eccentric, said edges might be serrated.

As shown, the eccentric is made thicker at

its rear end and is pivoted to the casing at its thinner end and the corrugations extend a considerable distance around the circumference of the same to form a long bearing, 5 which prevents cutting the cord, and in consequence of the tapering form the excess of weight is formed without undue increase in the length of the eccentric. This cord-clamp is especially adapted to the purpose of raising and lowering window-sashes, but is applicable to many purposes, such as a clothes-line tightener, dumb-elevator holder, &c. 10

By the construction herein described it will be readily seen by those skilled in the manufacture of like goods that much expense and time is saved in the formation of the eccentric. The two parts of the eccentric are secured together, preferably, by a rivet extending through the rivet-hole b^5 . It will be 15

obvious, however, that they might be secured in other ways. 20

I claim—

An eccentric for cord-clamps, consisting of the two pieces B, having oppositely beveled, corrugated, or serrated edges b' , and one part 25 of which has teats or projections cast thereon to enter recesses formed in the adjacent face of the other part, said parts being secured together in such manner that their corrugated edges form a V or U groove, and the 30 whole having a pivot-hole b^4 therethrough, for the purpose and substantially as described.

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

WILLIAM A. FORD.

Witnesses:

JULIA BELLES,
N. E. C. WHITNEY.