(No Model.)

2 Sheets—Sheet 1.

N. HAMLET.

SASH BALANCE.

No. 503,596. Patented Aug. 22, 1893.

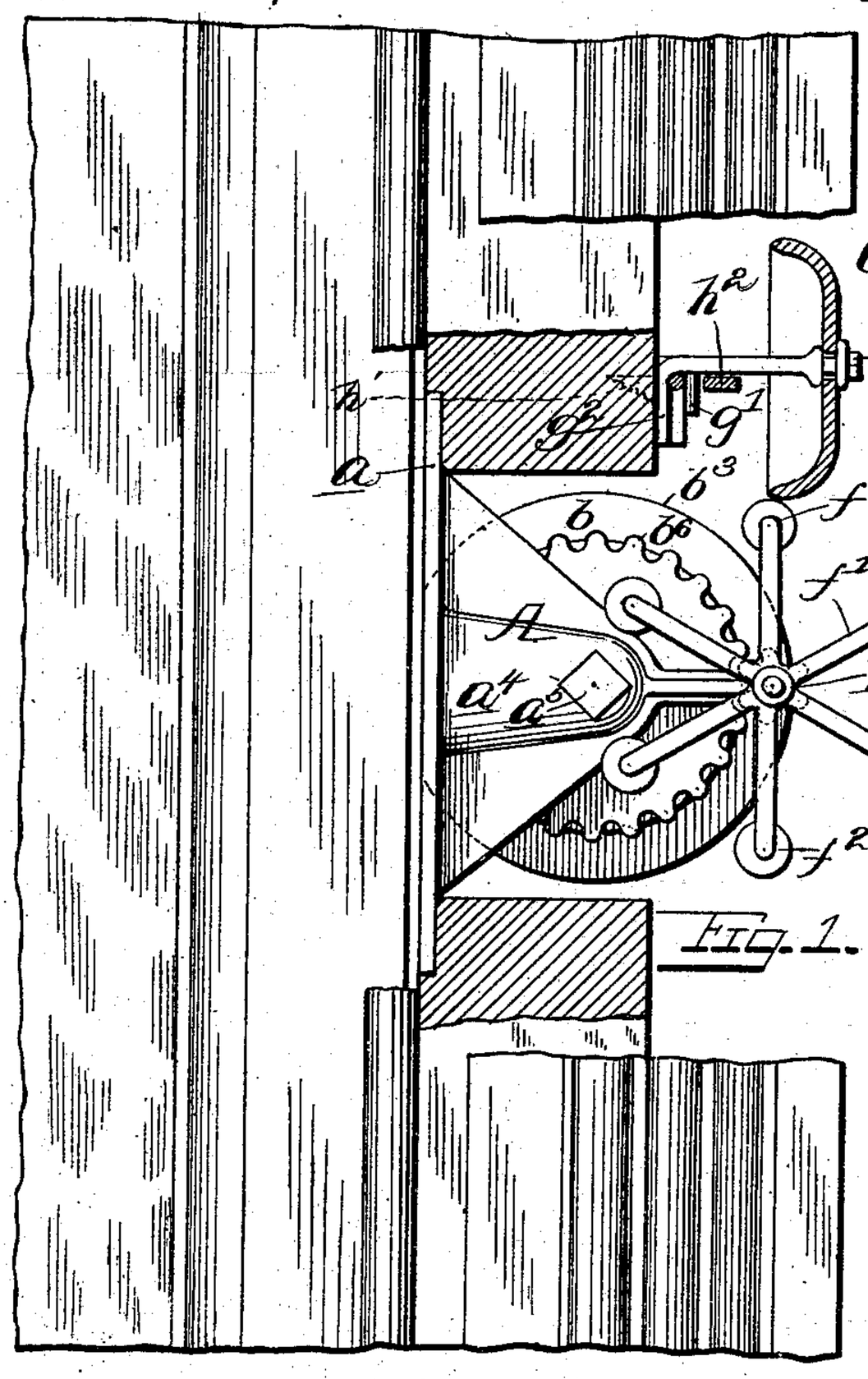

FIG. 1.

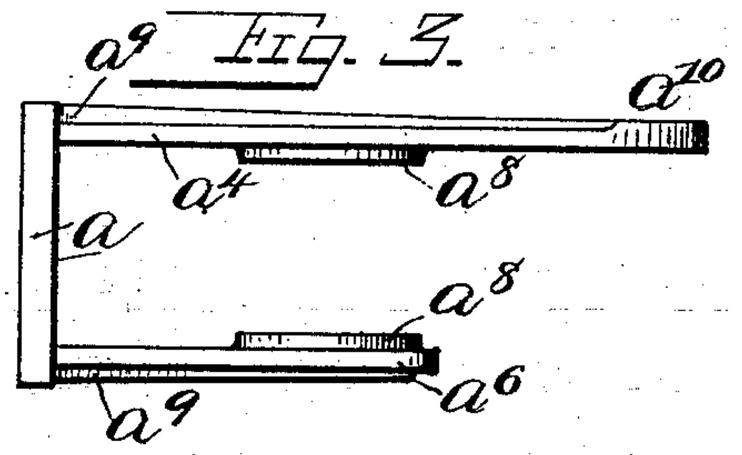

FIG. 3.

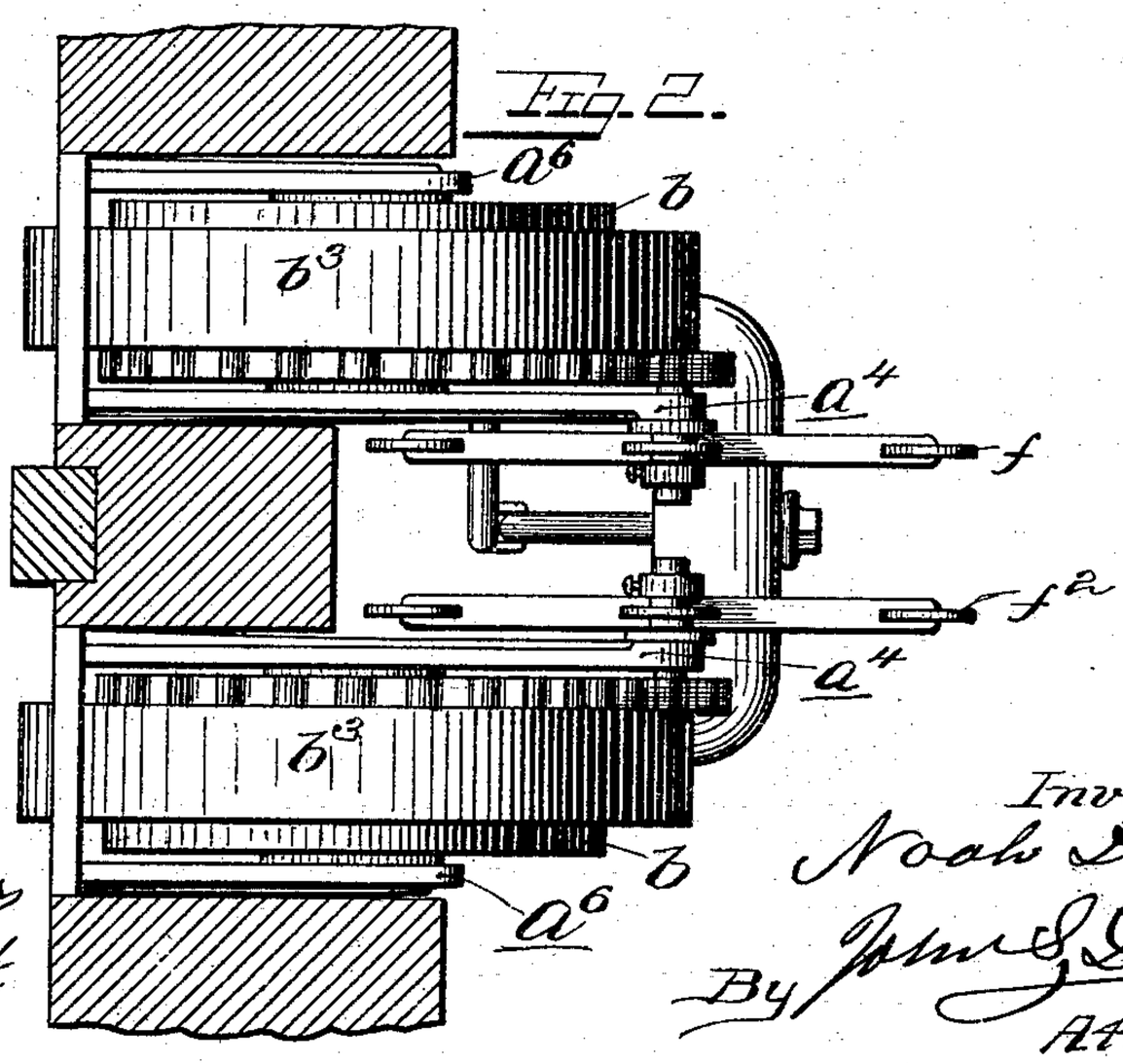

FIG. 2.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

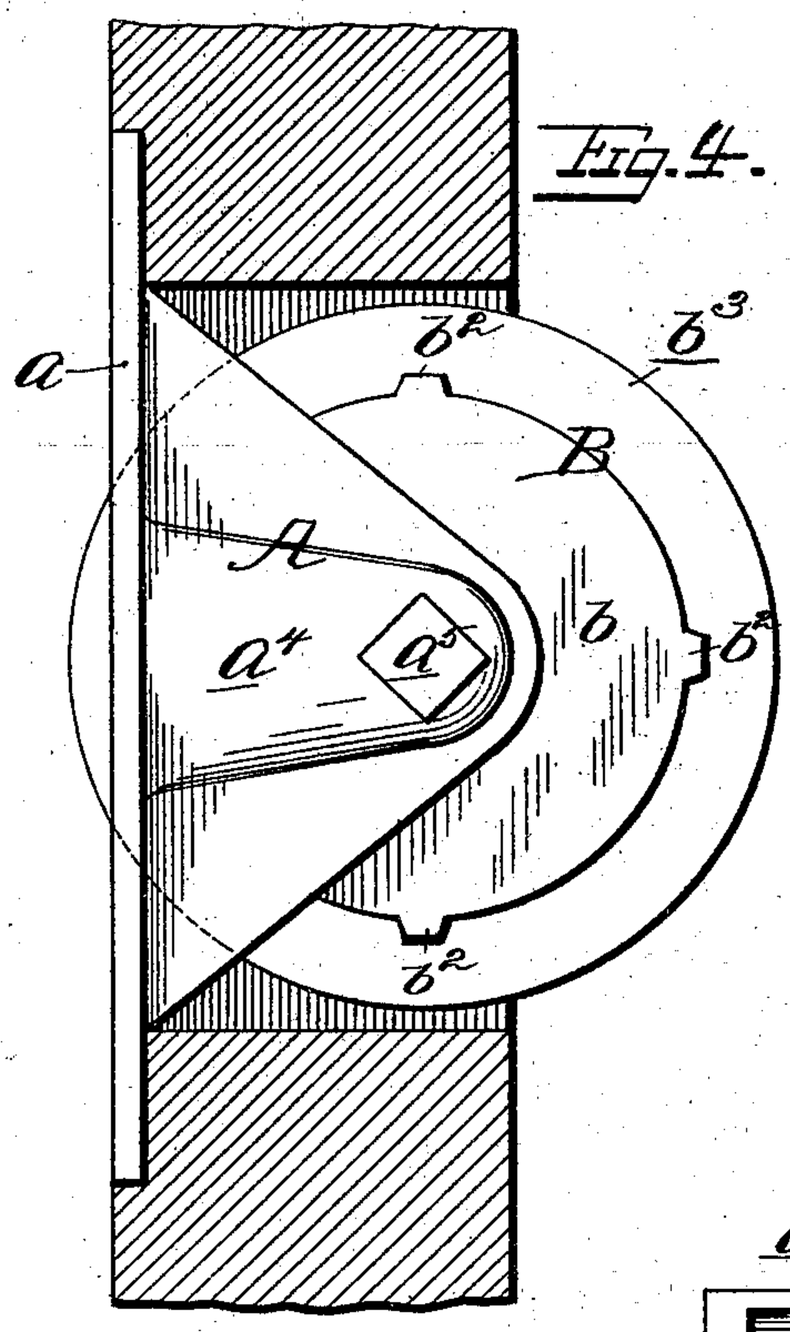


Fig. 6.

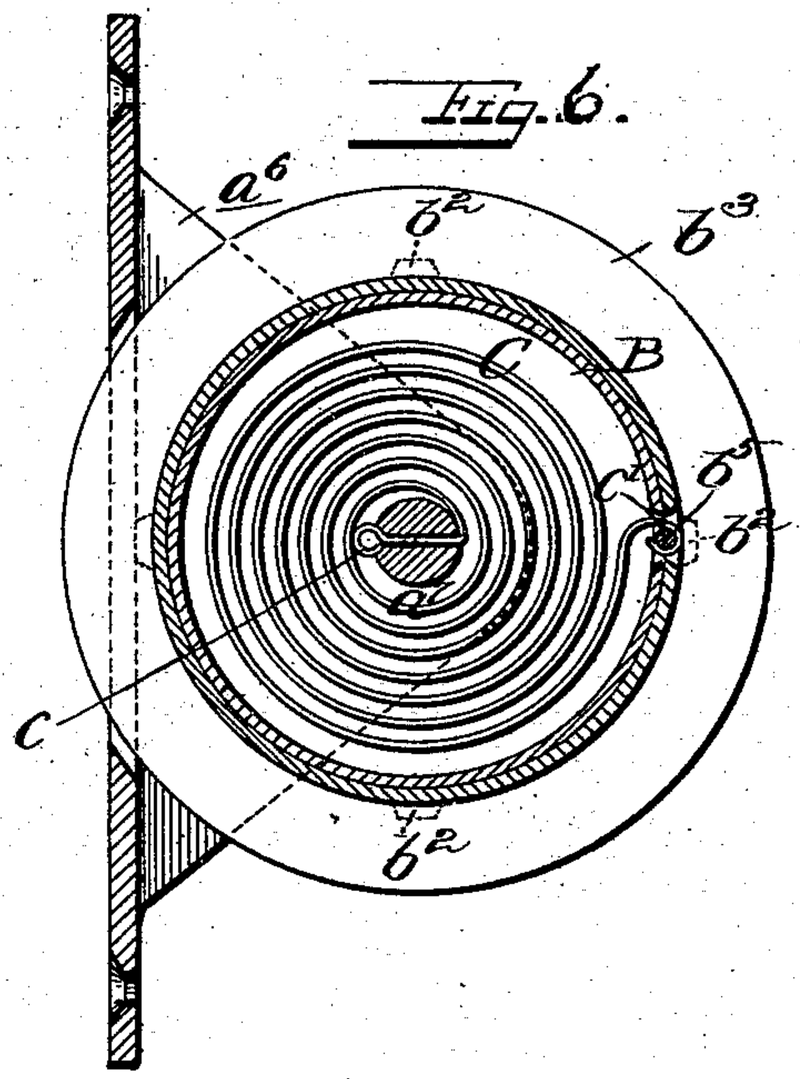


Fig. 7

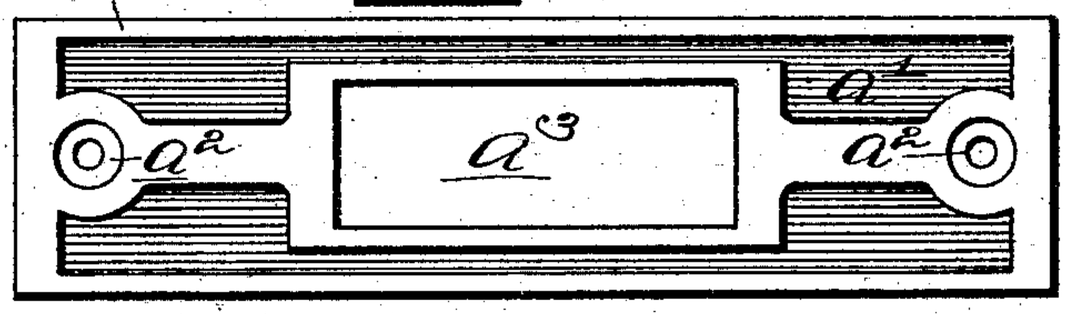


Fig. 5

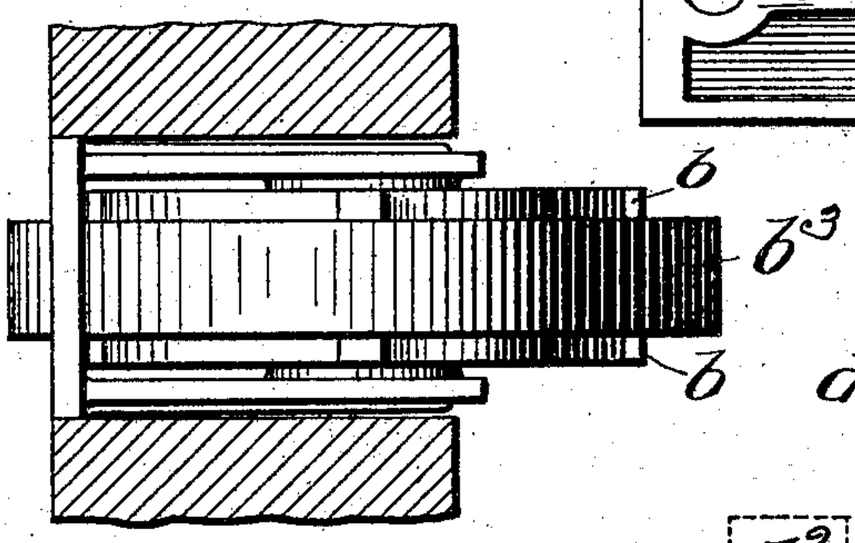


Fig. 8.

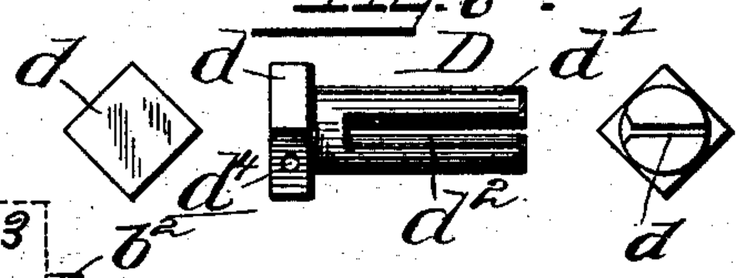


Fig. 10.

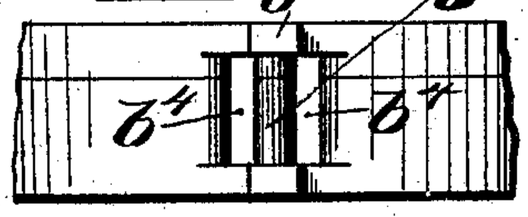
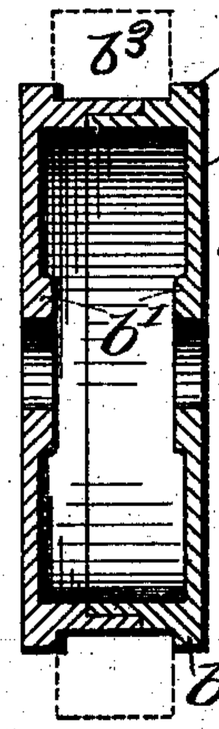


Fig. 9



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UNITED STATES PATENT OFFICE.

NOAH HAMLET, OF LITTLE ROCK, ARKANSAS.

SASH-BALANCE.

SPECIFICATION forming part of Letters Patent No. 503,596, dated August 22, 1893.

Application filed December 7, 1892. Serial No. 454,330. (No model.)

To all whom it may concern:

Be it known that I, NOAH HAMLET, a citizen of the United States, residing at Little Rock, in the county of Pulaski and State of Arkansas, have invented certain new and useful Improvements in Sash-Balances; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention has relation to sash balances; and consists in the novel construction and arrangement of its parts; hereinafter set out, in this specification and the claims hereto attached.

In the accompanying drawings, Figure 1, is an elevation of my invention. Fig. 2, is an inverted plan view. Fig. 3, is an end view of the frame. Fig. 4, is a side elevation of the modified form of my invention. Fig. 5, is an edge view of Fig. 7. Fig. 6, is a longitudinal sectional view of Fig. 7. Fig. 7, is a face view of the frame. Fig. 8, is a detail view of the axle. Fig. 9, is a transverse sectional view of the drum. Fig. 10, is an edge view of a segment of drum, showing the spring-pin and the openings on either side.

My invention is described as follows:

A, represents the frame, having in the face, a, counter-sunk panels, a', counter-sunk screw-holds, a^2, and an oblong rectangular opening, a^3, for the edge of the wheel, B, to work through. One of the arms, a^4, (Fig. 1,) is provided with a square opening, a^5, while the opposite arm, a^6, is provided with a circular opening, a^7, (Fig. 6,) concentric with the square opening, a^5, in order that the axle, D, may lie parallel to the face of the face-plate, a, and perpendicular to the face of the long arm, a^4, each side of the frame having a boss, a^8, on the inside, and web, a^9, on the outside.

The drum, B, is cast in two parts, having rabbeted flanges and go together with a tight fit, (Fig. 9.) The inside and outside of said flanges are smooth and flush with each other. Each part of the drum has a raised boss, b', on the inside, and raised ribs, b^2, on its circumference, ninety degrees apart. Said ribs are cut out in the center (see Fig. 9,) the width of the rubber-band b^3, keeping the band from slipping laterally, said part of the drum having three one-eighth-inch holes, cast in its sides at equal distances apart; the distance from the center of the drum to the center of the hole being three-fourths inch. Each part of the drum is provided with a central axle opening. These openings are to be accurately centered and lined, so that when the two parts are put together and hung on the axle, the drum will run perfectly true. In one of the ribs, b^2, there are two longitudinal slots, b^4, having between them a pin, b^5. This pin, b^5, is a fastening for the outer end of the spiral spring, C, the pin and each of the opposite sides of the opening being well rounded. The axle, D, has a square end, d, rounded shank, d', and longitudinal slot, d^2. Said slot is only wide enough to admit the inner end of the spring, C. The inner end of said spring is provided with an eye, c, to prevent it slipping through said slot. The said spiral spring, C, is made such length, width and thickness, as necessity may require. The inner end is bent to fit the slot, d^2, in the axle, D, and has the temper drawn for one turn. The outer end of said spring is provided with an eye, c', which fits over the pin, b^5, in the circumference of the drum. Both edges of one side of the slot, d^2, in axle, D, are well rounded, and the other side is cut out to admit the eye at the inner end of the spring. The square end of the axle has an eye-hole, d^4, through it, in order that a spanner may be put on, said axle being partly withdrawn, the tension of the spring increased or diminished, and said axle pushed back to its place.

When the invention is provided with strikers and an alarm-bell, the arm, a^4, is provided with an extension, a^{10}, (Fig. 3,) having a hole through its outer end straight and perpendicular to its face, for the hub of the strikers to run in. The drum, b, is provided at one edge of its periphery with cogs, b^6, (Fig. 1,) which are adapted to mesh with the mechanism of an alarm-bell.

I claim the right to dispense with the rubber-band, b^3, and use a corrugated metal tire in lieu thereof, whose corrugations may fit in similar corrugations in a metal plate, secured to the edge of the sash, and I also claim the right to make my invention of various sizes

to adapt it to light or heavy window-sash; and as a modified form I construct my invention without the bell-attachments, as shown in Figs. 4, 5, 6, 7, 8, 9, 10.

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

1. In combination with a window-frame and sash, the combination of the frame A, having in its face a rectangular opening a^3, arm a^4, having square perforation a^5, arm a^6, having circular perforation a^7; drum B, consisting of the two rabbeted parts b, and having a central axle perforation and around its periphery notched ribs b^2, and on each side of one of its ribs openings b^4, leaving a bar b^5; tire b^3, fitting around said drum and in the notches of said ribs; axle D, having the perforated square end d, circular body d', and longitudinal slot d^2; spiral spring C, one end secured in the slot d^2, and the other around the bar b^5, substantially as shown and described and for the purposes set forth.

2. In combination with a window-frame and sash, the frame A, having in its face a rectangular opening a^3, arm a^4, having square perforation a^5, and arm a^6, having circular perforation a^7; drum B, consisting of the two rabbeted parts b, and having a central axle perforation, axle D, having the perforated square end d, circular body d', and longitudinal slot d^2; spiral spring C, one end secured in the slot d^2, and the other to the periphery of the drum, substantially as shown and described and for the purposes set forth.

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

NOAH HAMLET.

Witnesses:
N. V. FITTS,
BEN. F. REINBERGER.