(No Model.)

A. L. SMITH.

DRAWER ATTACHMENT.

No. 567,693. Patented Sept. 15, 1896.

Fig. 1.

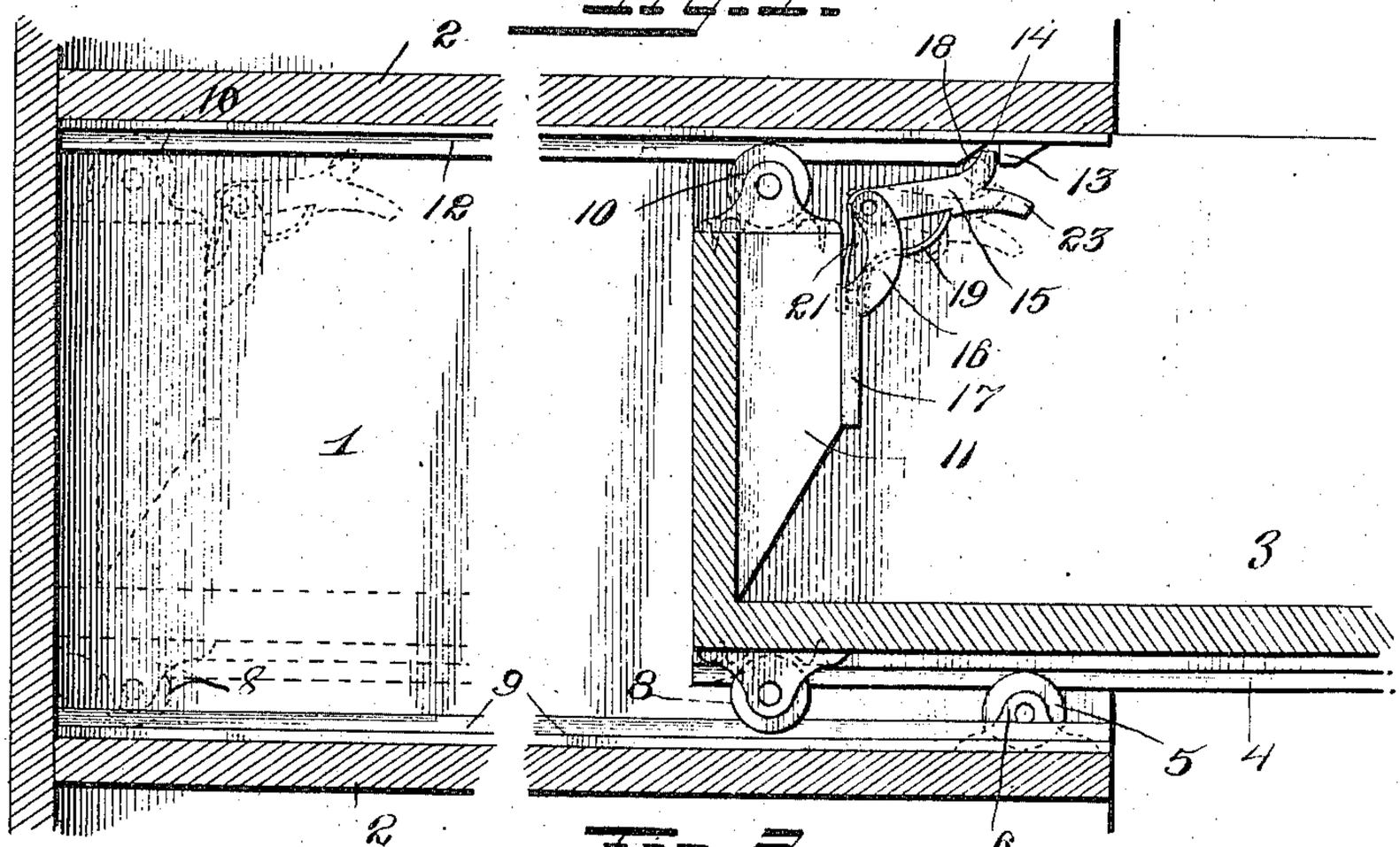

Fig. 2.

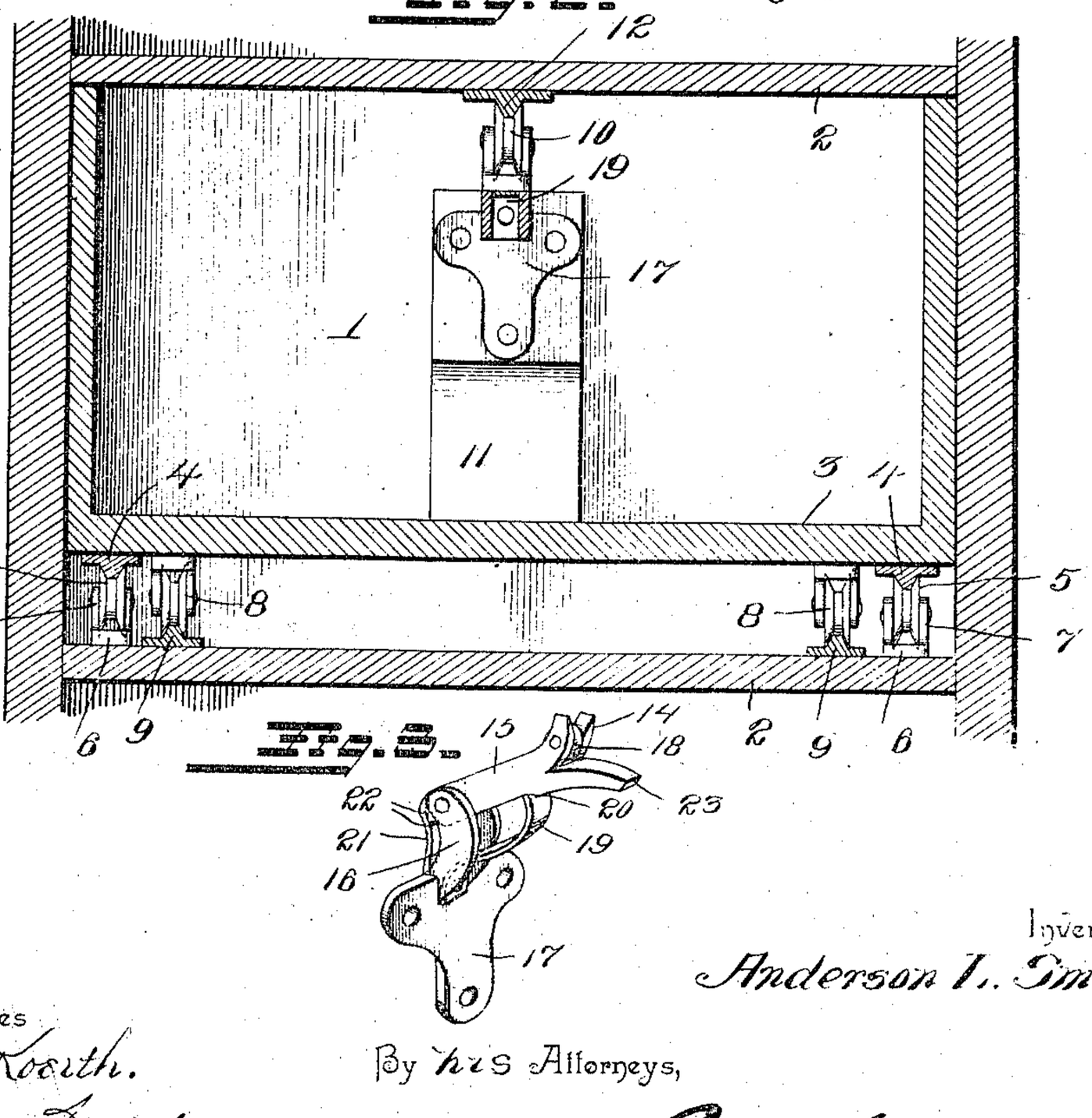

Fig. 3.

Witnesses
H. J. Kocuth.
R. M. Smith.

Inventor
Anderson L. Smith.

By his Attorneys,
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

ANDERSON LLOYD SMITH, OF ILA, GEORGIA.

DRAWER ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 567,693, dated September 15, 1896.

Application filed December 26, 1895. Serial No. 573,389. (No model.)

To all whom it may concern:

Be it known that I, ANDERSON LLOYD SMITH, a citizen of the United States, residing at Ila, in the county of Madison and State of Georgia, have invented a new and useful Drawer Attachment, of which the following is a specification.

This invention relates to an improvement in drawer attachments, and has for its object to provide, in connection with sliding drawers of various articles of furniture, means whereby the binding and sagging of the drawers is prevented, and whereby, also, it will be impossible for the drawers to be entirely withdrawn from the article of furniture accidentally.

The invention also contemplates constructing said means in a manner that will admit of the entire withdrawal of a drawer when necessary.

To this end the invention consists in certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and finally pointed out in the claims hereto appended.

In the accompanying drawings, Figure 1 is a vertical sectional view through a bureau or other article of furniture, and also through a sliding drawer having the improved attachment applied thereto. Fig. 2 is also a vertical section through the same, taken at right angles to Fig. 1. Fig. 3 is an enlarged detail perspective view of the improved latch.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

Referring to the accompanying drawings, 1 designates a sufficient portion of an article of furniture, such as a bureau or desk, to illustrate the application of the present improvement. 2 indicates adjacent horizontal partitions dividing the article up into drawer-spaces, and 3 represents a sliding drawer, adapted to be moved in and out between said partitions.

In carrying out the present invention, the drawer 3 is made of somewhat less depth than the space included between the horizontal partitions, and upon its under surface and adjacent to each end thereof are secured rails or tracks 4. These rails or tracks may be of any suitable form in cross-section, but are preferably provided with a V-shaped head, the apex of which is flattened, and with laterally-projecting flanges, by means of which each rail is secured to the drawer. The rails or tracks 4 extend from the rear to the front of the drawer and rest and run upon rollers 5, journaled in frames 6, secured to the underlying horizontal partition 2. Two of these rollers are employed, one at each side of the drawer-space, and both located upon and adjacent to the front edge of the underlying partition 2. The rollers 5 are formed each with a V-shaped groove, fitting the rail or track 4, and each roller is journaled between the side plates 7 of the roller-frame, the said side plates being formed integrally with one or more connecting-webs, through which suitable screws or fastening devices are passed into the bottom or underlying partition 2. The rollers 5 practically support the entire weight of the drawer and its contents. A similar pair of rollers 8 are attached in a similar manner to the bottom of the drawer just inside of the planes of the rollers 5, as shown in Fig. 2. These rollers 8 are secured to the rear edge or corner of the drawer, and travel upon stationary rails or tracks 9, secured to the underlying partition. The rollers 8, when the drawer is pushed inward, support the weight of that portion of the drawer, and in conjunction with the rollers 5 support the entire weight of the drawer and its contents when closed.

In order to prevent the tipping or sagging of the drawer when drawn outward or opened, another roller 10 is employed, similar to those, 5 and 8, above described, and secured to the upper end of a block 11, secured centrally to the inside surface of the rear wall of the drawer, as shown in Fig. 1. This roller runs against a rail or track 12, secured centrally to the overlying partition 2, as shown in Fig. 2, and when the drawer is pulled out the said roller 10, in conjunction with the rollers 5, obviates any binding or sagging of the drawer.

In order to prevent the drawer from being entirely pulled out, the upper rail or track 12 is notched, as indicated at 13, whereby it is adapted to be engaged by the lip 14 of a latch 15, pivotally mounted between the bifurcated or forked arms 16 of a bracket 17,

secured to the front surface of the block 11, above referred to. The lip 14 at the swinging end of the latch is bifurcated and an antifriction-roller 18 is journaled therein, the same being adapted to roll against the upper rail or track 12, and the said roller, together with the bifurcated portions of the lip 14, is adapted to be projected into the notch 13 upon reaching the same, by means of a spring 19, secured at one end to the bracket 17, and at its free end bearing against the latch 15, and behind a shoulder 20 on said latch. Another spring 21, secured to the bracket 17, bears at its free end against the pivoted end of the latch and is adapted to engage one of several shoulders 22 on the latch for retaining the latch against the tension of the spring 19 in either of the positions shown in full and dotted lines in Fig. 1.

23 is a thumb-piece formed integrally with the latch 15 for facilitating the manipulation of the same. In operation, before introducing the drawer the latch is adjusted to the position shown in dotted lines at the right hand of Fig. 1. The drawer is now introduced into its receiving-space, after which, by disengaging the spring 21, the latch is allowed to assume the position shown in dotted lines at the left hand of Fig. 1, whereupon the drawer may be pushed inward and closed. Upon pulling the drawer out the spring-actuated latch, as above described, will automatically engage within the notch 13 of the upper rail or track, thus limiting the outward movement of the drawer and preventing the accidental displacement or entire withdrawal thereof. When it is desired to take the drawer out, the latch may be thrown out of engagement with the rail 12 by depressing the thumb-piece 23. By means of the construction above described the annoyance and vexation incident to the opening and closing of the drawers of bureaus, desks, &c., are entirely obviated, and at the same time the outward movement of the drawers is limited in the manner and for the purpose described.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new is—

1. The combination with a drawer and its case, of a latch pivotally connected to the rear wall of the drawer, a track arranged in the upper portion of the drawer-space and provided with a notch into which the free end of the latch may move, and a spring for pressing the latch toward the track, substantially as described.

2. The combination with a drawer and its case, of a latch pivotally connected to the rear wall of the drawer and bifurcated at its swinging end, a track arranged in the upper portion of the drawer-space, and provided with a notch into which the bifurcated end of the latch may move, and a spring for pressing the latch toward the track, substantially as described.

3. The combination with a sliding drawer and its case, of a latch pivotally connected to the rear wall of the drawer and bifurcated at its free end and also provided with shoulders as described, a track arranged in the upper portion of the drawer-space and having a notch with which the latch engages, a spring for pressing said latch toward the track, and an independent spring adapted to engage the shoulders on the latch for holding the latter either in or out of engagement with the track, substantially as described.

4. The combination with a sliding drawer and with the case in which the same slides, of a latch pivotally connected to the rear wall of the drawer and having its swinging end bifurcated, a roller journaled in such bifurcated end of the latch, a superposed track arranged in the upper portion of the drawer-space and formed with a notch into which the bifurcated end of the latch and its roller is adapted to be projected, and a spring for pressing said latch toward the track, substantially as and for the purpose described.

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

ANDERSON LLOYD SMITH.

Witnesses:
GEORGE W. WESTBROOK,
JAMES L. THOMPSON.