

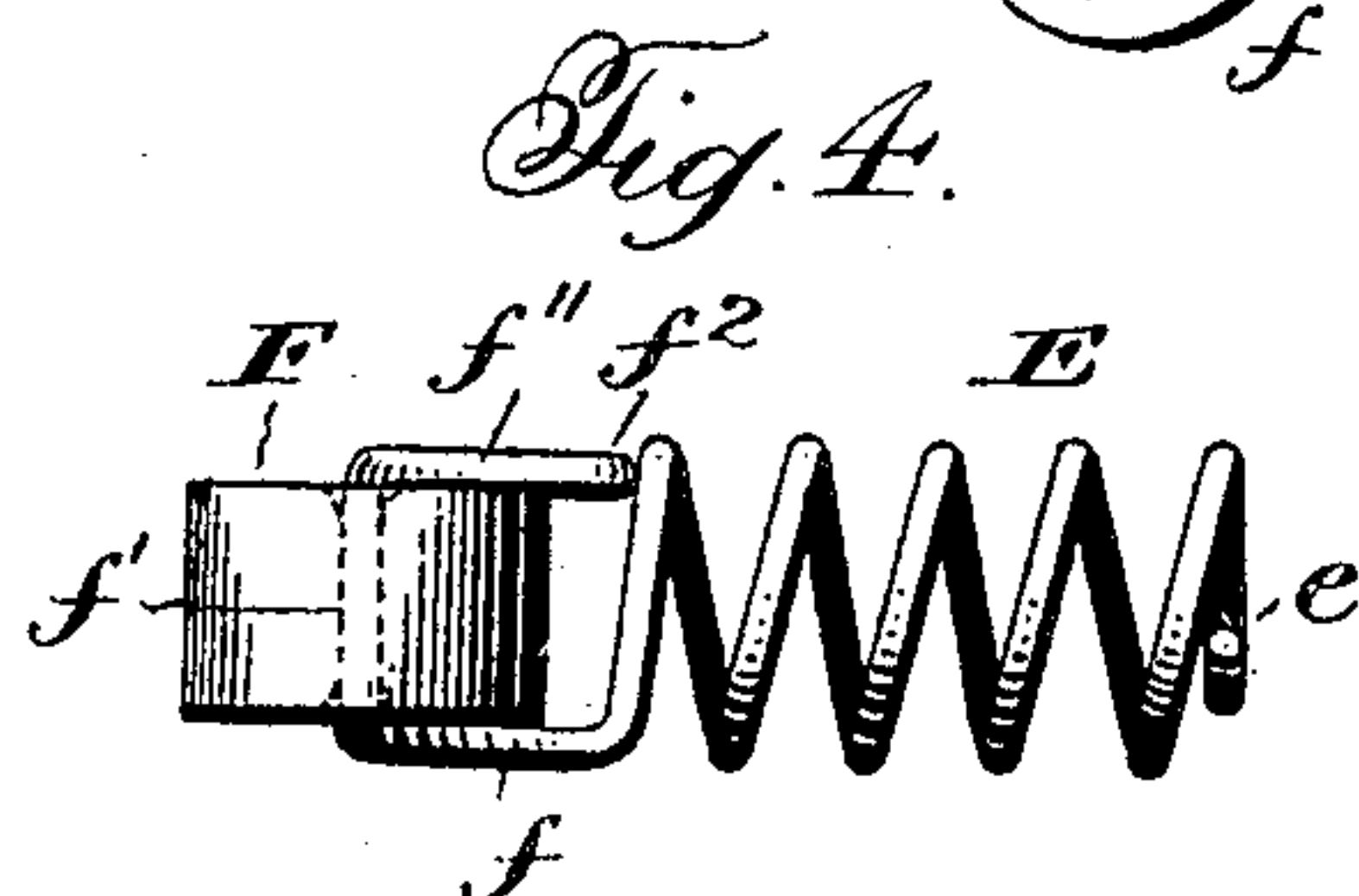
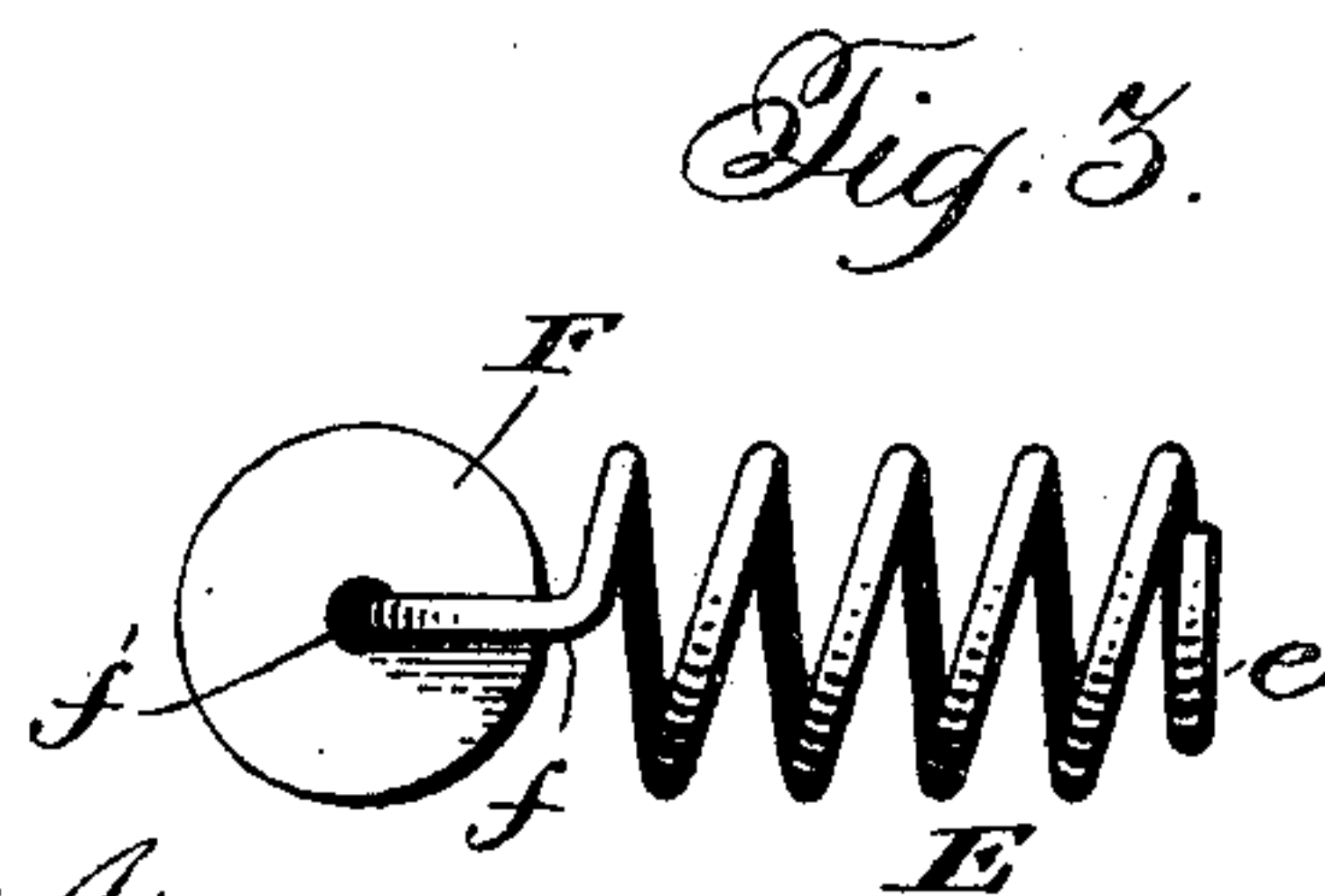
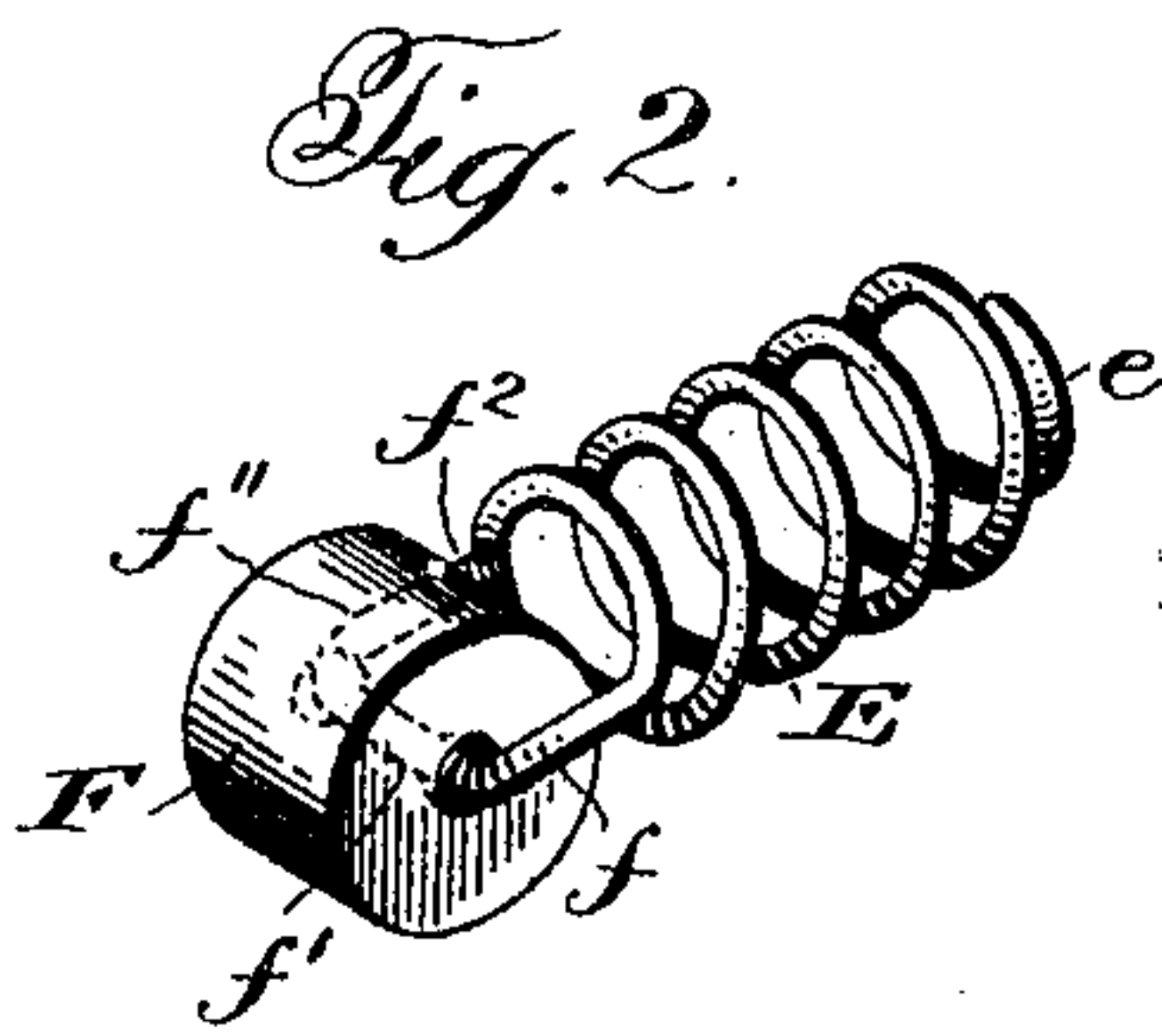
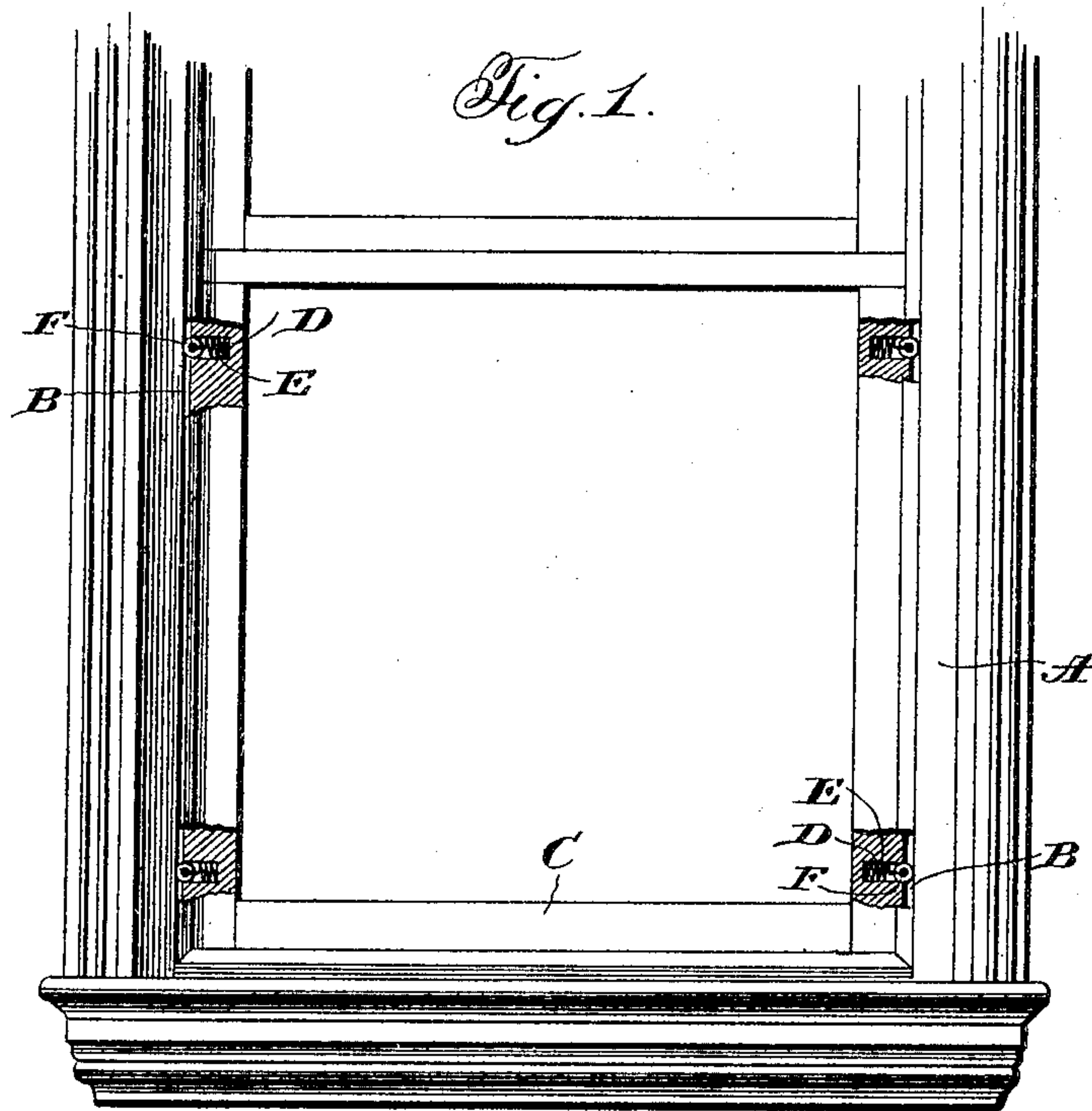
No. 804,228.

PATENTED NOV. 14, 1905.

J. B. HUNT.

WINDOW HOLDING AND ANTIRATTLING DEVICE.

APPLICATION FILED MAY 3, 1905.



Witnesses:

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# UNITED STATES PATENT OFFICE.

JOHN B. HUNT, OF TRENTON, NEW JERSEY.

## WINDOW HOLDING AND ANTIRATTLING DEVICE.

No. 804,228.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed May 3, 1905. Serial No. 258,575.

*To all whom it may concern:*

Be it known that I, JOHN B. HUNT, a citizen of the United States, residing at Trenton, in the county of Mercer and State of New Jersey, have invented new and useful Improvements in Window Holding and Antirattling Devices, of which the following is a specification.

This invention relates to improvements in holding devices or attachments for windows, and has for its primary object to dispense with the ordinary sash weights and cords as well as to provide an antirattler for the window-sash.

With the foregoing objects in view the invention comprehends the provision of a sliding sash or the like with a series of spring-pressed antifriction-bearings, such as rollers, at each edge thereof designed to forcibly bear against the base of the usual runway or guiding-groove of the window-casing, which receives said edges of the sash or window.

A convenient embodiment of the invention is illustrated in the accompanying drawings, and the novel details of construction and arrangement will be apparent therefrom when considered in connection with the specific description hereinafter contained.

In the drawings, Figure 1 is an elevation of the ordinary window-casing and sliding sash therein, parts being broken away to more fully disclose the holding and antirattling devices. Fig. 2 is a perspective view of one of the devices detached. Fig. 3 is an edge elevation thereof, and Fig. 4 is a bottom view of the same.

Referring more specifically to the drawings, A represents the window-casing, having the ordinary guide-grooves or runways B, and C the sash, mounted with its edges projecting into and slidably engaging said grooves B. In the edges of the sash I provide pockets or recesses D of any convenient number, according to the size and weight of the sash, in the present instance two at each edge being shown, one near the top and the other near the bottom of the sash. These pockets or recesses are formed complementary to and receive the holding and antirattling devices now to be set forth. Each device consists of a shank E, formed of a strong spiral spring of substantially uniform diameter throughout, the inner convolution or turn  $e$  of which is somewhat reduced and bent to enable it to occupy a plane at right angles to the longitudinal axis of the shank, whereby a broad flat

bearing at the inner end of the shank is provided for abutment with the base or inner wall of the pocket or recess in which the same is seated. The end of the wire, the device being preferably formed of relatively heavy wire, adjoining the outermost convolution of the shank is projected outwardly in a plane parallel to the longitudinal axis of the shank to form an arm  $f$ , is then offset at right angles to form an axle  $f'$ , arranged centrally of and crossing said longitudinal axis, whence the outer end of the wire is bent inwardly to form an arm  $f''$  in parallelism with the arm  $f$ . It is to be noted that the extreme end  $f''$  of the arm  $f''$  is of a length to abut the surface of the outermost convolution before referred to. A roller F is mounted within the yoke constituted by the formation just described and is free to revolve upon the axle portion  $f'$ , said roller being in the nature of an antifriction device in that it will turn to permit the raising and lowering of the window under the application of manual force and to also constitute a friction holding and antirattling device, owing to the normal tension of the spring thereupon, which forces the same into frictional holding engagement with the base of the runway or guide-groove B, as is obvious. It is to be noted that the periphery of the roller is broad and flat and that the same is prevented from being bent or canted out of a normal working position owing to the integral formation of the arm  $f$  with the spring at one side of the yoke and the abutment of the end of the arm  $f''$  with the spring at the opposite side of the yoke.

I have found that a window-sash equipped with my devices may be readily adjusted to any desired position in the window casing or frame and there held, thus doing away with the usual sash cords and balances; also, that the outward thrusting of the springs at opposite edges of the sash brings the rollers into such a firm contact with the surface of the grooves as to effectually steady the sash to prevent rattling of the same in the frame.

I have specified no special materials of which my devices are composed, because it is obvious many materials would be suitable for the purposes desired; but I may add that although the roller may be of relatively hard material, such as wood or steel, the same may as well be of relatively soft material, such as rubber, and of course in the latter instance the frictional resistance offered by the devices will be correspondingly increased.



Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A holding and antirattling device for windows and the like comprising a spiral spring-shank, the outer end of which terminates in a yoke arranged in a plane parallel to the longitudinal axis of the spiral spring-shank, and an antifriction device mounted on said yoke, said yoke and shank being formed of a single piece of material.

2. A holding and antirattling device for windows and the like comprising a spiral spring-shank, the outer end of which terminates in a yoke, and an antifriction device mounted on said yoke, said yoke being integral with the spring-shank at one end and abutting a part thereof at the opposite end.

3. A holding and antirattling device for windows and the like comprising a spiral spring the inner end of which is bent into a plane at right angles to the longitudinal axis of the spiral spring, and the outermost convolution of which terminates in a yoke arranged in a plane parallel to the longitudinal axis of the spiral spring and within the planes of the

sides of the spiral spring, and a roller mounted on said yoke.

4. A holding and antirattling device for windows comprising a spiral spring the inner convolution of which is bent into a plane at right angles to the longitudinal axis of the shank, and the outermost convolution of which terminates in a yoke, and a roller mounted in said yoke, and the end of the free arm of the yoke abutting the surface of said outermost convolution.

5. A holding and antirattling device for windows and the like comprising a spiral spring-shank, the outer end of which terminates in a yoke arranged in a plane parallel to the longitudinal axis of the spiral spring-shank and a roller mounted on the cross-bar of the yoke, said yoke and shank being formed of a single piece of material.

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

JOHN B. HUNT.

Witnesses:

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