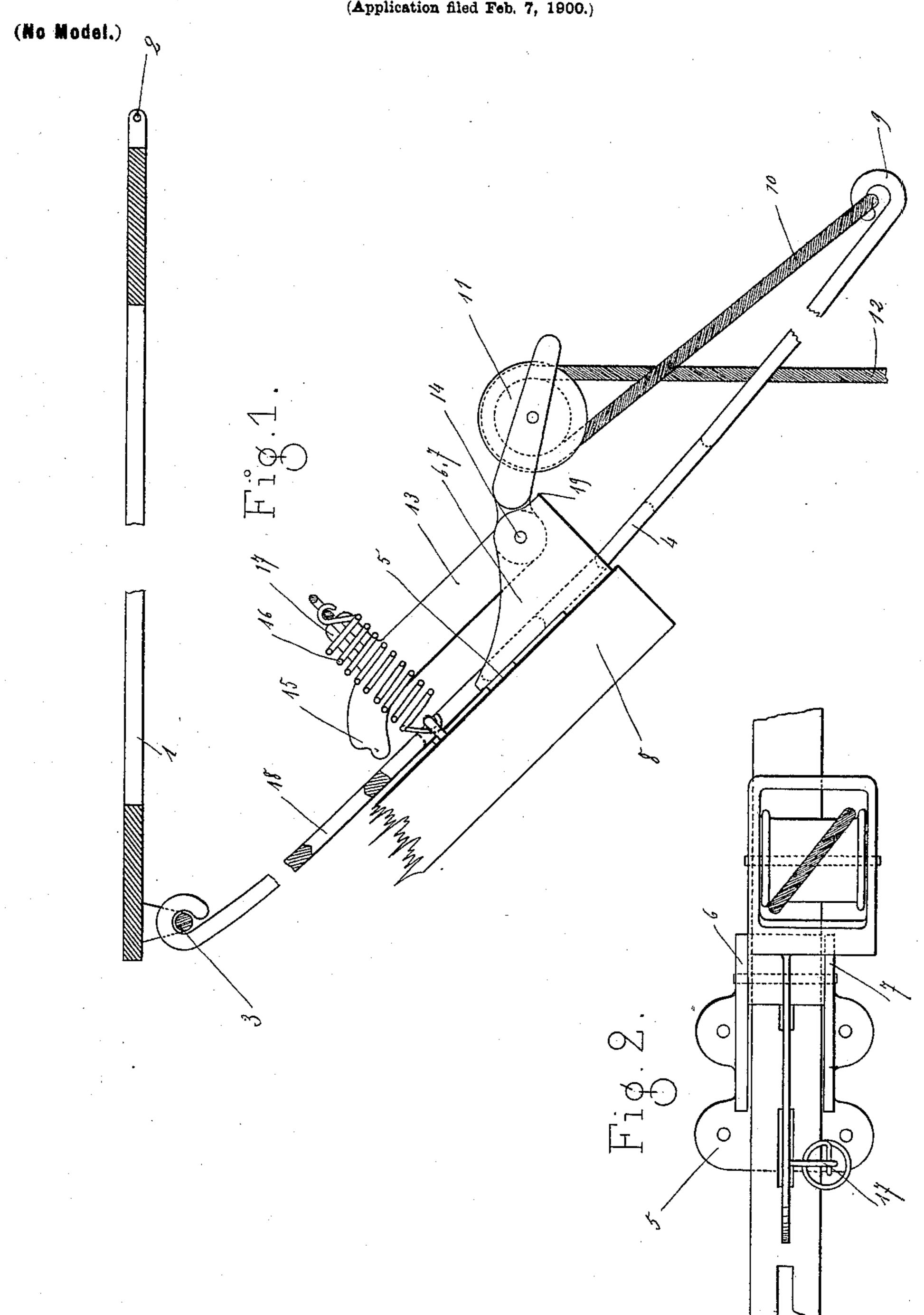
E. KIEBBE.

APPARATUS FOR OPENING OR CLOSING WINDOWS.

(Application filed Feb. 7, 1900.)



Witnesses!-

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EMILE KIEBBE, OF LODZ, RUSSIA.

APPARATUS FOR OPENING OR CLOSING WINDOWS.

SPECIFICATION forming part of Letters Patent No. 662,794, dated November 27, 1900.

Application filed February 7, 1900. Serial No. 4,396. (No model.)

To all whom it may concern:

Be it known that I, EMILE KIEBBE, a citizen of the French Republic, residing at Lodz, Poland, Russia, have invented certain new and useful Improvements in Means or Apparatus in Use for Opening or Closing Windows, Frames, or the Like; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable 10 others skilled in the art to which it appertains to make and use the same.

The present invention relates to means for actuating windows, frames, and the like; and it consists in mechanism which enables a win-15 dow to be opened or closed by means of a single cord, means being provided at the same time to prevent a sudden fall of the window should it become free in consequence of the cord breaking or through other accident. 20 The operating device insures a perfect closing and renders impossible any attempt to open the window from the outside.

A preferred form of the apparatus is represented in the accompanying drawings.

Figure 1 is a longitudinal side view, partly in section; and Fig. 2, a plan view of a portion of the apparatus.

1 represents the window or frame to be controlled, swinging on hinges 2. At 3 the frame 30 has hinged to it a metal bar 4, more or less arched, according to the dimensions of the frame and the height to which it is intended to be moved. The bar 4 slides between two guides, stops, or flanges 6 and 7 of a support 5— 35 say of cast metal—fixed to any permanentlyfixed support 8. The other end 9 of the bar 4 is connected to an operating-cord 10, which passes around a pulley 11 and hangs down freely, as indicated at 12, within reach of the 40 user's hand. The pulley 11 is supported on one of the arms of a lever 13, pivoted on a pin or axle 14, provided between the flanges 6 and 7 of the support 5. The other end of | nature in presence of two witnesses. the lever 13 is suitably pointed or formed for 45 the purpose of engaging, under the pressure of a spring 16, in slots or recesses 18, provided for that purpose at suitable intervals in the

bar 4. One end of the spring is attached to a projection 17 on the lever 13 and the other to an ear or other part of the support 5.

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The operation is as follows: By drawing down the cord at 12 the lever 13 will gently turn on its axis 14 until it strikes against the flange 7 at 19, at which moment the end 15 of the lever is withdrawn from the recess 18 55 in which it was engaged, and by continuing to pull on the cord the bar 4 will slide upward on the support 5 and raise the frame on its hinges 2. Having raised the frame to the required extent, the pull on the cord is re- 60 laxed, whereupon the end 15 of the lever will enter the recess 18 which is immediately beneath it, thereby effectively holding the frame in the desired position. To effect the closing of the window, it is necessary again to 65 draw down the cord, but with less force than in the first case and only sufficiently to draw the pulley end of the lever down on 19, while at the same time allowing the cord to ascend.

Having now particularly described and as- 70 certained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is—

In a device of the class described, the combination with a window or frame, mounted 75 on horizontal pivots, of a fixed support below said frame provided with a guideway, a bar mounted to slide in said guideway and provided with a series of recesses, a lever pivoted intermediate of its ends to the fixed sup-80 port, a spring having a normal tendency to cause one end of the lever to engage one of the recesses in the bar, a pulley journaled in the other end of the lever, and a cord attached to the lower end of the bar, passing 85 around the pulley and hanging down to be grasped by the operator, substantially as described.

In testimony whereof I have affixed my sig-

EMILE KIEBBE.

Witnesses:

BALES FAWBLORADGIULR, ADAM MICKIEWICZ.