No. 740,434. PATENTED OCT. 6, 1903.

F. H. HOWE.

TYPE WRITER DESK.

APPLICATION FILED MAR. 23, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

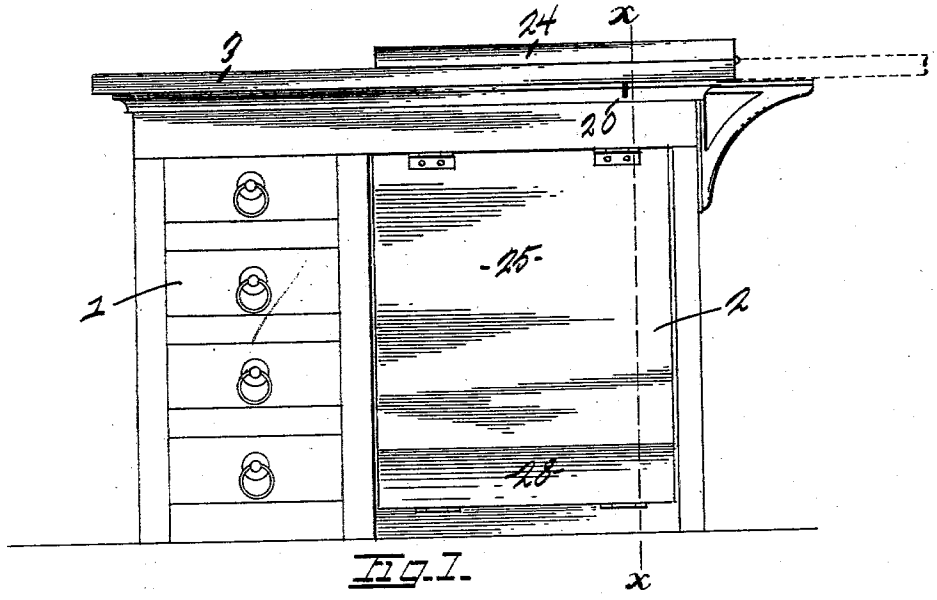


Fig. 1.

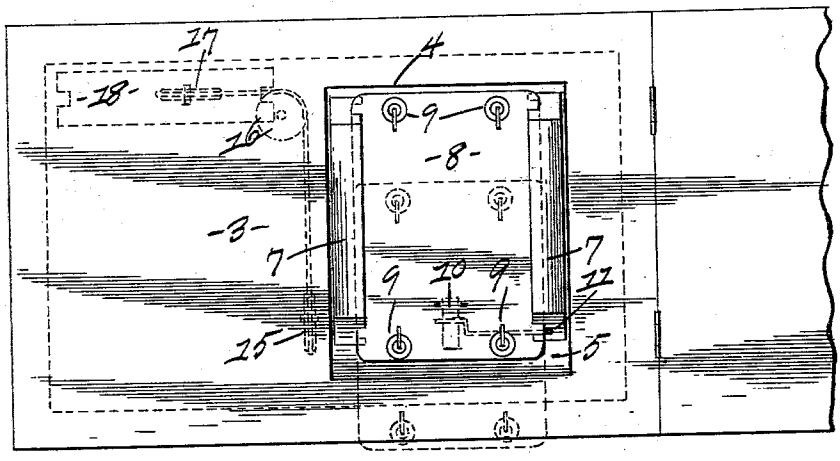


Fig. 2.

WITNESSES.

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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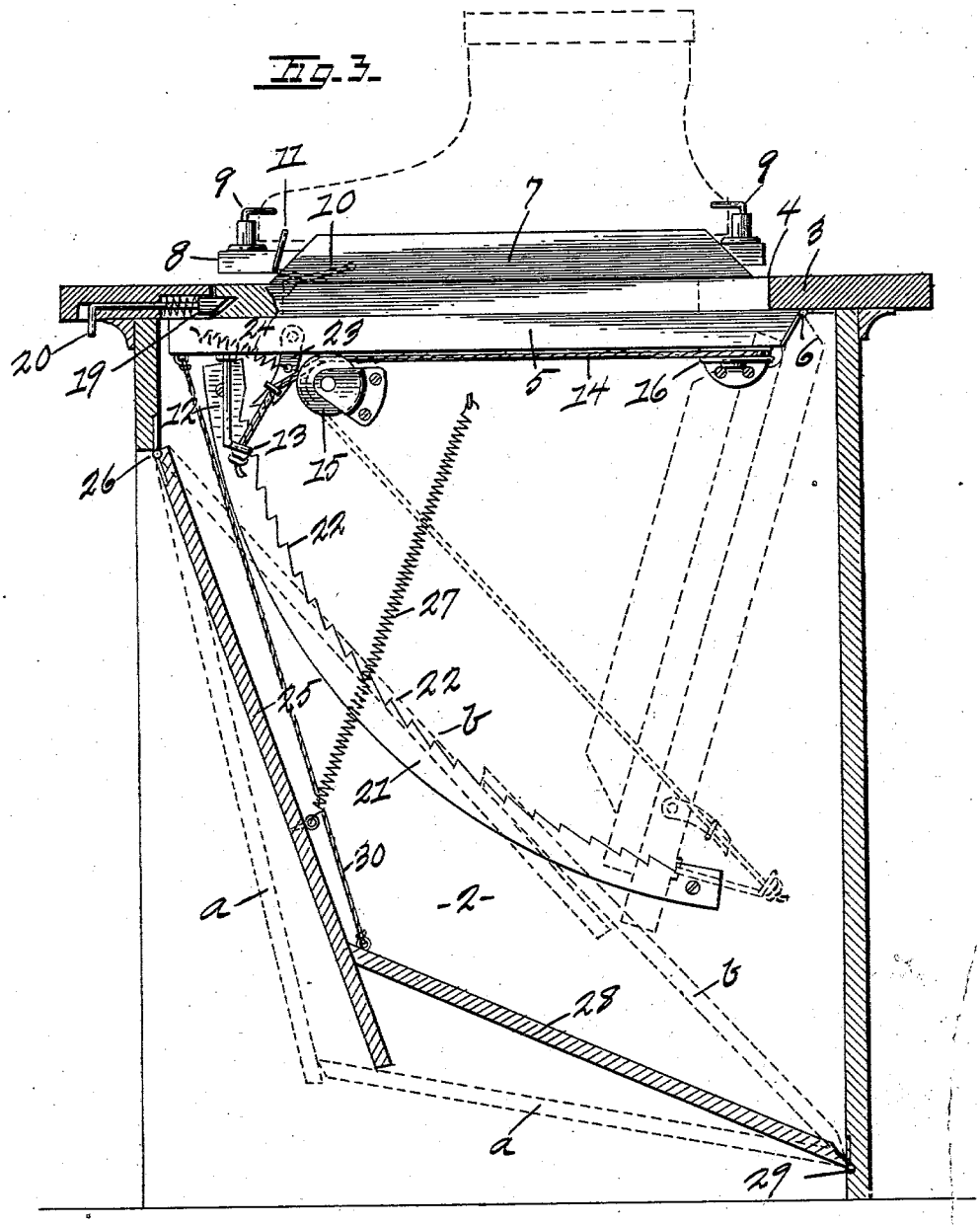
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Fig. 3.



WITNESSES.

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No. 740,434. Patented October 6, 1903.

UNITED STATES PATENT OFFICE.

FRANK H. HOWE, OF CURTICE, OHIO.

TYPE-WRITER DESK.

SPECIFICATION forming part of Letters Patent No. 740,434, dated October 6, 1903.

Application filed March 23, 1903. Serial No. 149,052. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. HOWE, of Curtice, county of Ottawa, and State of Ohio, have invented certain new and useful Improvements in Type-Writer Desks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 figures of reference marked thereon, which form part of this specification.

My invention has reference to a type-writer desk, and embodies the novel details and features of construction hereinafter shown and described, and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of my improved desk, showing the same closed. Fig. 2 is a top plan view of the desk, showing the swinging frame for supporting the type-writing machine in raised position. Fig. 3 is an enlarged sectional elevation, the parts in section being indicated by the line *x x*, Fig. 1.

Referring to the details of construction, the body of the desk is arranged with a drawer-pedestal 1 to the left and space or well 2 to the right, the flat top 3 extending over both the drawer-pedestal and the well. Arranged in the top is a rectangular opening 4 of a size to permit the type-writing machine to be elevated therethrough.

5 is a swinging section or frame hinged at its rear end at 6 to the desk-top.

7 represents parallel guides upon the swinging frame provided upon their inner sides with grooves adapted to receive a slide 8, upon which the type-writer is secured by means of angled clamps 9, so that the type-writer may be drawn out to any desired distance, the position when extended being shown by the dotted lines, Fig. 2. Upon the lower face of the slide near its forward edge is pivoted a gravity-operated plate or catch 10, (indicated in dotted lines in Figs. 2 and 3,) which operates to engage the swinging frame 5 and hold the slide in position. When it is desired to draw the slide outward, the catch 10 is lifted by means of the bent lever 11, thereby disengaging the same from the swinging frame. If it is desired, the slide, with the machine clamped thereon, may be instantly removed from the desk when the machine is to be used elsewhere. Extending downwardly from the lower face of the swinging frame and located at a point near the left forward corner of the same is a rod 12, formed with an eye 13, to which one end of a cable or rope 14 is secured. The rope is directed over pulleys 15, 16, and 17, respectively, and is then extended downwardly and is secured to a weight 18, guided vertically at the rear of the drawer-pedestal in the space provided therefor immediately behind the drawers therein. The weight 18 exactly counterbalances that of the type-writing machine and is adapted to support the same in any position desired, the raised position of the swinging frame being shown in full lines, Fig. 3, whereas the lowered position is shown in dotted lines. When the swinging frame is raised, it is locked in this position by a spring-catch 19, which when the machine is to be lowered into the well is retracted by means of a handle 20, easily accessible on the forward side of the desk.

It is evident that if the rope or cable 13 should accidentally part the instant the swinging frame would be released by retracting the catch 19 the same would swing forcibly downward into the well with a liability of damage to the type-writing machine. I have obviated this danger by providing a safety means to hold the swinging frame from falling into the well when the rope is accidentally parted. The means I employ comprise an arc-shaped plate 21, secured to the side of the well, and upon the inner marginal edge of the same are provided serrations 22, adapted to be engaged by a pawl 23, pivoted to the side of the swinging frame, a spring 24, secured at one end to the frame and at the other to the pawl 23, causing the pawl to engage the serrations when not disengaged by other means. In order that the pawl shall at all times be disengaged, except when the rope parts, there is provided a laterally-extending eye upon the pawl, through which the rope 14 extends. The tension of the rope is such that the pawl will be disengaged from the serrations so long as the same is intact; but the instant the rope is parted and the tension removed the pawl will be released and engage

the serrations to arrest the fall of the swinging frame and the machine carried thereby. As a result of this construction the swinging frame is insured against falling, the pawl 23 engaging the serrations of the arc-shaped plate instantly when the tension of the lifting-cable is released. It will be seen that so long as the parts operate normally neither the pawl 23 nor the serrated plate will assist in the operation of the device, except to protect the same against injury. To lower the machine into the well, the slide carrying the same is pushed inward to the position shown in Fig. 3, the gravity-operated catch 10 holding the slide in this position. The spring-catch 19 is then withdrawn, and the machine is depressed by exerting a slight pressure thereon. The machine having now been lowered into the well, the rectangular opening at the top is closed by a hinged leaf 24, which is made to take the position in dotted lines, Fig. 1, when the machine is to be elevated.

25 is a hinged member adapted to close the forward side of the well to exclude dust from the machine when lowered into the desk, the same being hinged at the top at 26.

27 is a light coiled spring secured at one end to the section 25 and at the other to the body of the desk. This spring is arranged to take a position close to the right-hand wall of the well, so as to be out of the way of the swinging frame when the latter is in operation. There is also a hinged member 28, adapted to close the bottom of the well to exclude dust therefrom, the same being hinged at 29. The free end of the member 28 is adapted to slide upon the inner face of the member 25, so that when both members are depressed they take the position in dotted lines *a*, Fig. 3, forming nearly a right angle, as shown, the spring 27 being elongated and under tension. The members are moved to this position automatically when the type-writing machine is lowered, since the forward end of the swinging frame carrying the machine will contact with the member 25 and force it outward, the member 28 then falling by gravity and holding the member 25 in outward position. I have provided a flexible connection 30, either a light chain or a cord, between the outer end of the swinging frame and the free end of the member 28, which is of a length to cause the member 28 to be lifted slightly from its lowered position when the swinging frame is raised.

In Fig. 3 are shown in full lines the members 25 and 28, respectively, at the instant when the swinging section has been raised, these members being also slightly elevated from their original position, and when in this position they will continue to move upward to the position indicated by dotted lines *b*, Fig. 3, since the angle between two sections has been increased, the edge of the section 28 then sliding over the face of the member 25. It is apparent that the hinged members 25 and 28 after once being started in their upward movement will continue so because of the action of the coiled spring 27. It will thus be seen that these members will be automatically raised when the swinging section carrying the type-writing machine is elevated to be out of the way of the knees of the operator when the machine is in use, and the same will also be lowered automatically when the swinging section is depressed.

From the foregoing description the novelty and utility of my invention will be apparent.

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

1. In a type-writer desk, a swinging section for supporting the type-writing machine, hinged to the desk-top, a flexible lifting-cable secured to a movable part of the swinging section and maintained under tension by suitable means, an arc-shaped plate provided with marginal serrations, arranged adjacent to the swinging section, and a pawl carried by the swinging section adapted to engage the arc-shaped plate when the tension on the lifting-cable is released, substantially as described.

2. In a type-writer desk, a swinging section hinged to the desk-top, a downwardly-extending rod arranged at the forward end of the swinging section, a flexible lifting-cable suitably guided over pulleys and attached at one end to the rod and having a weight secured to the other end thereof, a serrated plate arranged adjacent to the swinging section, and a spring-actuated pawl pivoted to the side of the swinging section provided with means for engaging the lifting-cable, whereby when the tension of the cable is released the pawl will engage the serrated plate and be disengaged therefrom when the cable is under tension, substantially as described.

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

FRANK H. HOWE.

Witnesses:
W. H. HOWE,
RICHARD TIFFT.