

No. 733,042.

PATENTED JULY 7, 1903.

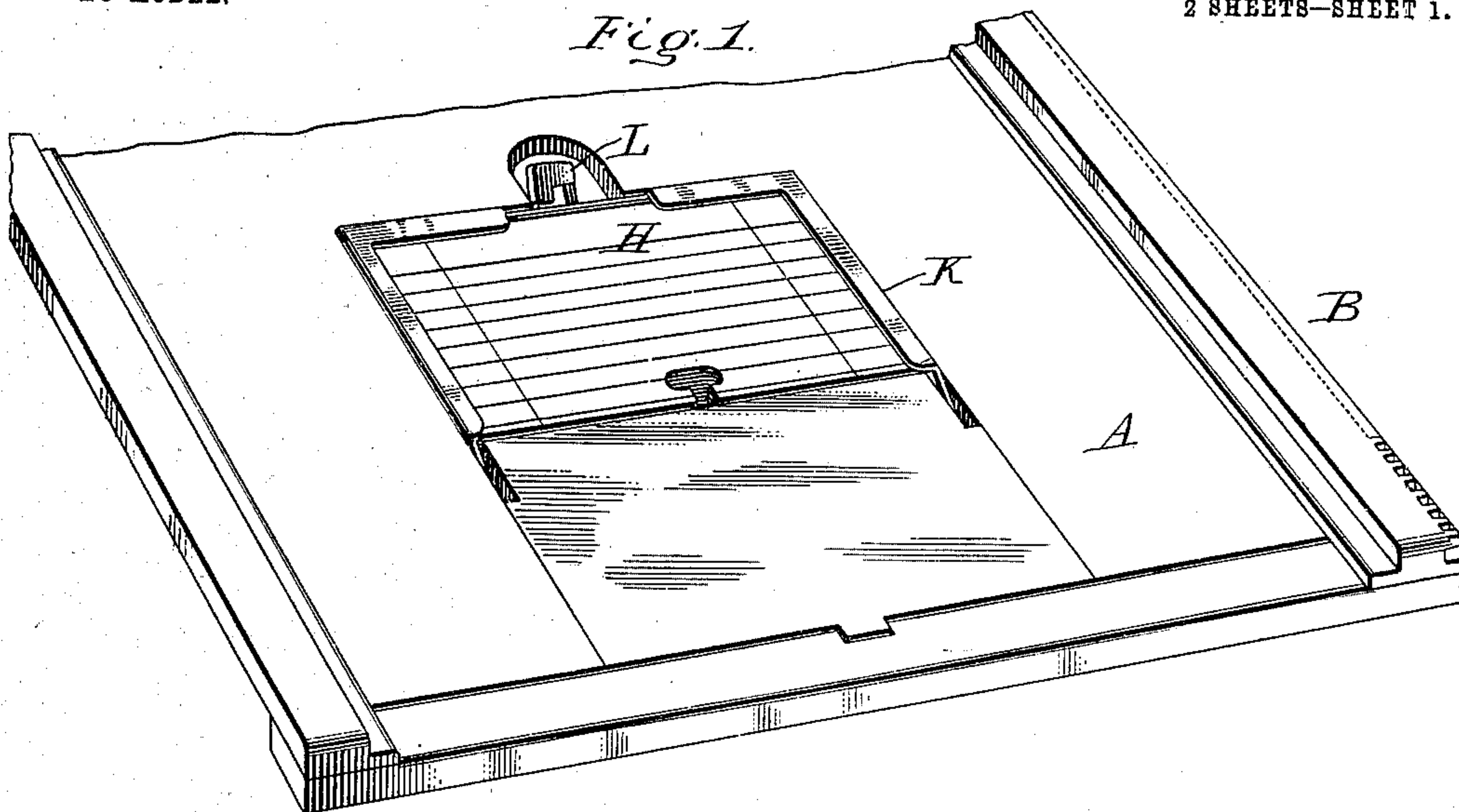
C. F. HOPKINS.  
TYPE WRITER.

APPLICATION FILED FEB. 25, 1903.

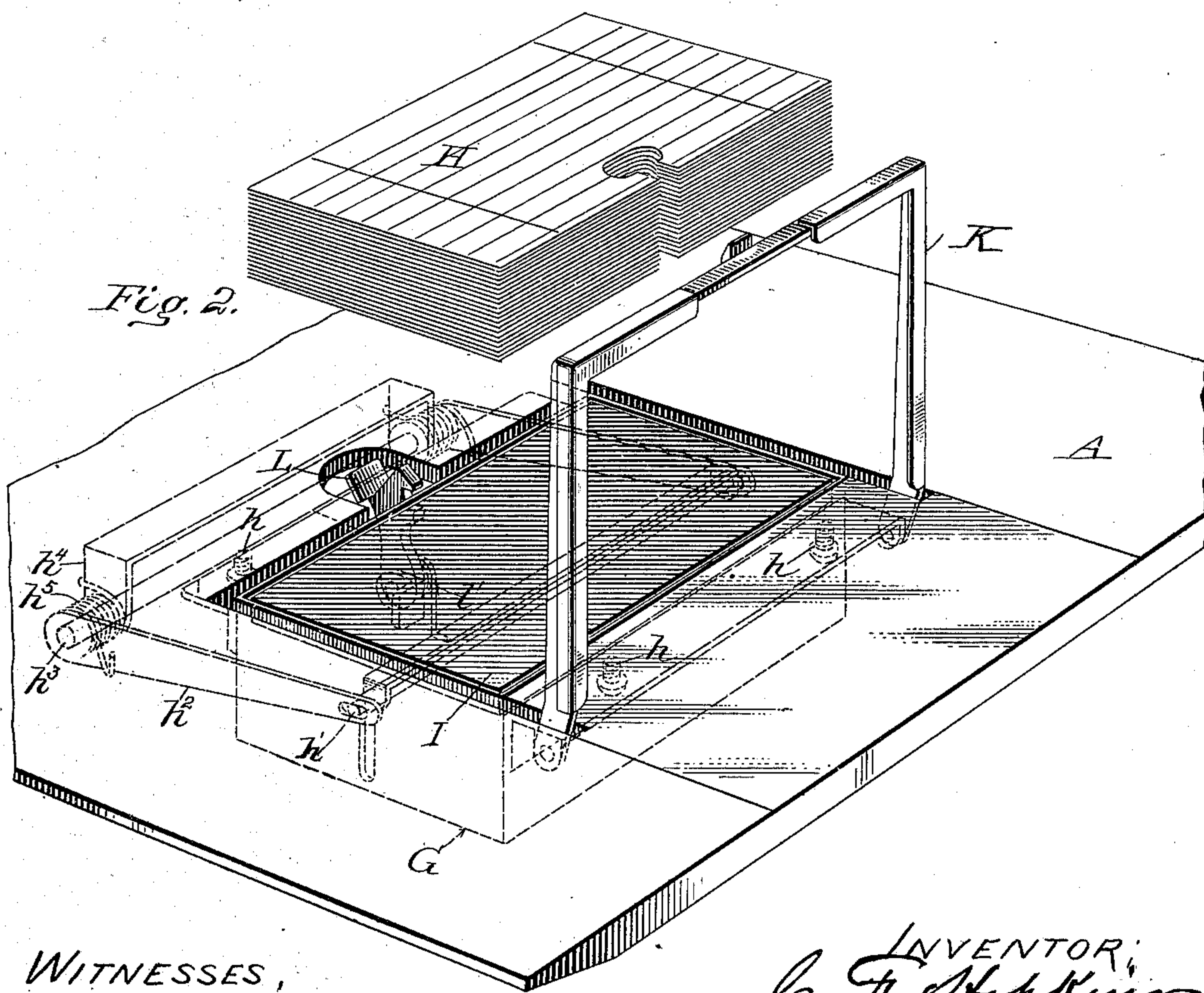
NO MODEL.

2 SHEETS—SHEET 1.

*Fig. 1.*



*Fig. 2.*



WITNESSES,  
*W. B. Brundine*  
*C. F. Johnson*

INVENTOR;  
*C. F. Hopkins*  
BY *P. T. Dodge*  
ATTY.

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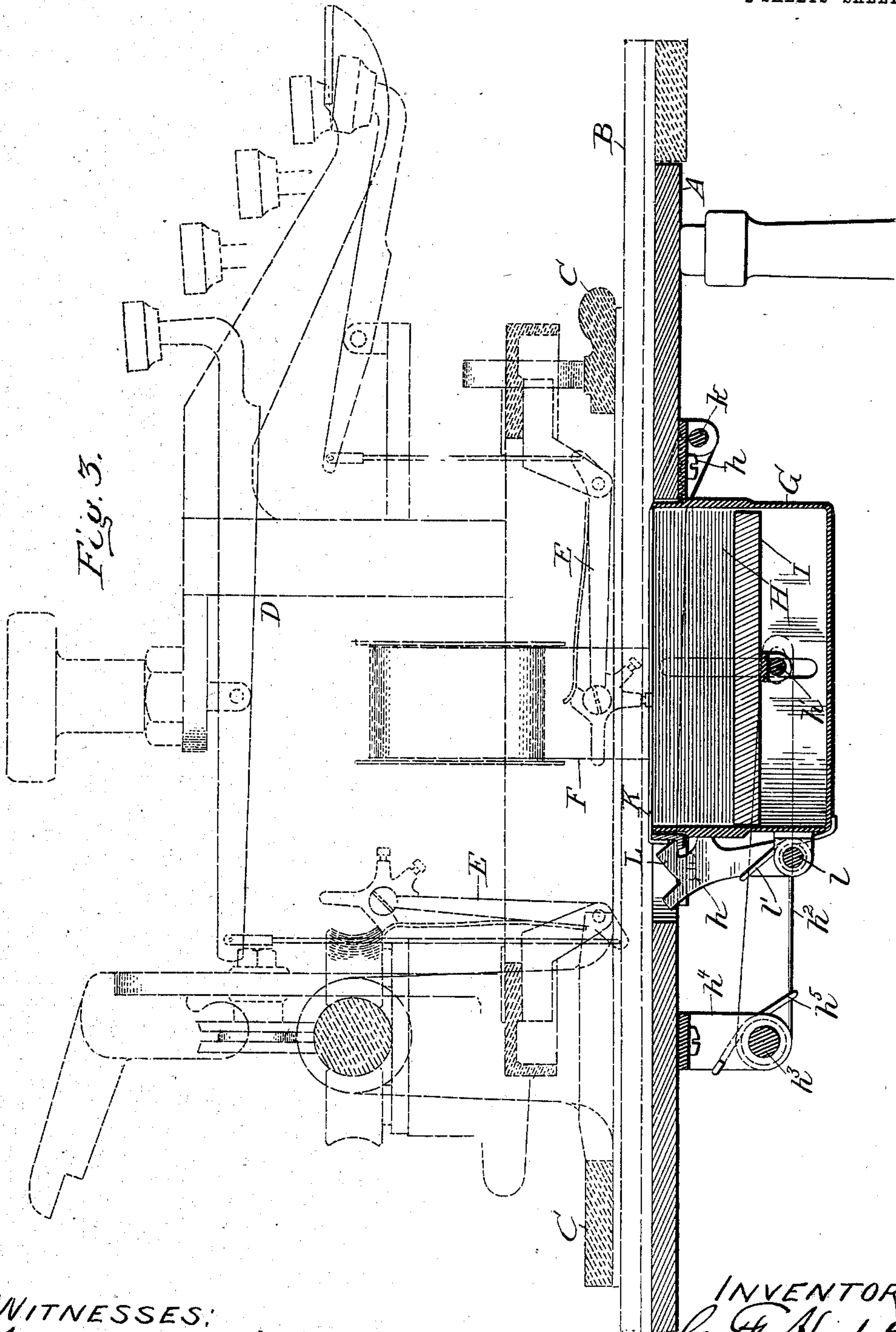
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NO MODEL.

2 SHEETS—SHEET 2.



WITNESSES:  
*W. B. Bunting.*  
*C. F. Johnson.*

INVENTOR  
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# UNITED STATES PATENT OFFICE.

CLARENCE F. HOPKINS, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE ELLIOTT & HATCH BOOK TYPEWRITER COMPANY, A CORPORATION OF NEW YORK.

## TYPE-WRITER.

SPECIFICATION forming part of Letters Patent No. 733,042, dated July 7, 1903.

Application filed February 25, 1903. Serial No. 144,998. (No model.)

*To all whom it may concern:*

Be it known that I, CLARENCE F. HOPKINS, of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Type-Writers, of which the following is a specification.

This invention has reference to that class of type-writers in which a downwardly-acting writing mechanism is mounted to move laterally and longitudinally over a flat horizontal platen employed to sustain paper on which the writing is to be effected.

The principal aim of the invention is to adapt this class of machines for writing on cards of uniform size and to facilitate the adjustment and removal of the cards.

To this end the invention consists, essentially, in constructing the platen with an opening therethrough within the printing-field and mounting in this opening a box or magazine adapted to contain a large number of horizontal cards and provided with a spring-actuated follower to lift the cards, with overlying lips to retain the top card at the writing-level, so that after it has been written upon it may be drawn forward out of the machine, its place being automatically taken by the next-lower card.

Referring to the drawings, Figure 1 is a perspective view of the platen with my card-holding device therein. Fig. 2 is a similar view with the top of the magazine open to permit the insertion of a supply of cards. Fig. 3 is a longitudinal vertical section through the platen, the writing mechanism being indicated by dotted lines thereover.

In the accompanying drawings, A represents the customary flat platen; B, an open rectangular frame overlying the platen; C, a second and similar frame mounted to slide forward and backward on the frame B for the purpose of line-spacing.

D is the printing mechanism, mounted in the frame C and including the type-bars E, pivoted to swing downward and print through the ribbon F on the underlying surface.

The foregoing parts may all be of the ordinary construction used in the Elliott & Hatch type-writer of commerce and represented as to the essential features in United States Patent No. 620,125.

Passing now to the subject of my invention, G represents a box or case adapted to receive a series of cards H, on which the writing is to be done. This box, open at its top, is extended upward through an opening formed for the purpose in the platen and is secured rigidly in place by screws *h*, passing through ears on the box into the under side of the platen, or it may be secured in any other appropriate manner. The box contains beneath the cards a plate or follower I, made of metal or suitably weighted, so that its inertia will be sufficient to prevent the cards from yielding or sinking under the blows of the type. This follower may be urged upward by springs or weights in any suitable manner. I recommend, however, the construction shown, in which the rod *h'*, underlying the follower-plate, is carried in the ends of arms *h*<sup>2</sup>, fastened to the end of a horizontal rock-shaft *h*<sup>3</sup>, which is seated in plate *h*<sup>4</sup> on the under side of the platen. Springs *h*<sup>5</sup>, encircling the rod and acting at their ends respectively on the plate *h*<sup>4</sup> and arms *h*<sup>2</sup>, serve to urge the follower and the cards upward with moderate pressure. To prevent the escape of the cards and to hold them firmly at the printing-level, I provide a top frame K of C form having a narrow flange or lip projecting inward over the ends and the rear side of the top card. This retaining-frame is preferably hinged to ears on the box or magazine at *k*, so that it may be turned upward, as shown in Fig. 2, to admit of the box being refilled. It is locked down when the machine is in action by a latch L, pivoted to the box at *l* and acted upon by springs *l'*, as shown in Fig. 3.

It will be observed in reference to Figs. 1 and 3 that my device serves to hold a series of cards in reserve and that the uppermost card is held in a predetermined position and firmly supported at the printing-level. After a card has been written upon its removal is effected by applying a slight downward pressure of the fingers and drawing it forward from under the frame K and over the surface of the platen. As one card is removed the next card rises in its place, so that writing may be resumed without delay or readjustment of the parts.



My device is particularly advantageous in that the stack of cards is held in position within the printing-field, so that no time is required in adjusting a second card after another has been printed and so, also, that it is unnecessary to move the writing mechanism to and from the printing-field in order to expose the position occupied by the card, as required in using the card-holding attachments now in use.

Having described my invention, what I claim is—

1. In a flat type-writer, the combination of a downwardly-acting writing mechanism, mounted to slide forward and rearward, with a fixed underlying box located in the printing-field and adapted to hold a series of cards, a follower to lift the cards, and retaining-lips arranged to overlie the top card and adapted to permit its removal edgewise.

2. In a flat type-writer and in combination with the overlying downwardly-acting writing mechanism, a stationary box or magazine G located in the printing-field, a spring-actuated follower therein, an overlying flanged frame to retain the top card, and means for removably holding said frame in position.

3. In a flat type-writer, the downwardly-acting writing mechanism, in combination with the underlying magazine for cards, with lips at the top to retain the top card, lifting-

springs for the cards, and an intermediate follower I, having weight and inertia sufficient to withstand the impact of the type, whereby the yielding of the cards under the blows of the type is prevented.

4. In a type-writer, a box or magazine adapted to contain a series of cards and permit their removal one at a time, a follower adapted and arranged to sustain the cards against the impact of the printing devices, in combination with a writing mechanism arranged to print the letters successively on the uppermost card in the magazine, said magazine and writing mechanism being movable one in relation to the other for letter and line spacing.

5. In a flat-bed type-writer and in combination with the overlying downwardly-printing sliding writing mechanism, the frame or platen having an opening therethrough within the printing-field, in combination with a card-holding mechanism mounted in said opening, and a follower mounted in the magazine to raise the cards.

In testimony whereof I hereunto set my hand, this 21st day of February, 1903, in the presence of two attesting witnesses.

CLARENCE F. HOPKINS.

Witnesses:

E. F. RYAN,

HOWARD M. JACOBS.