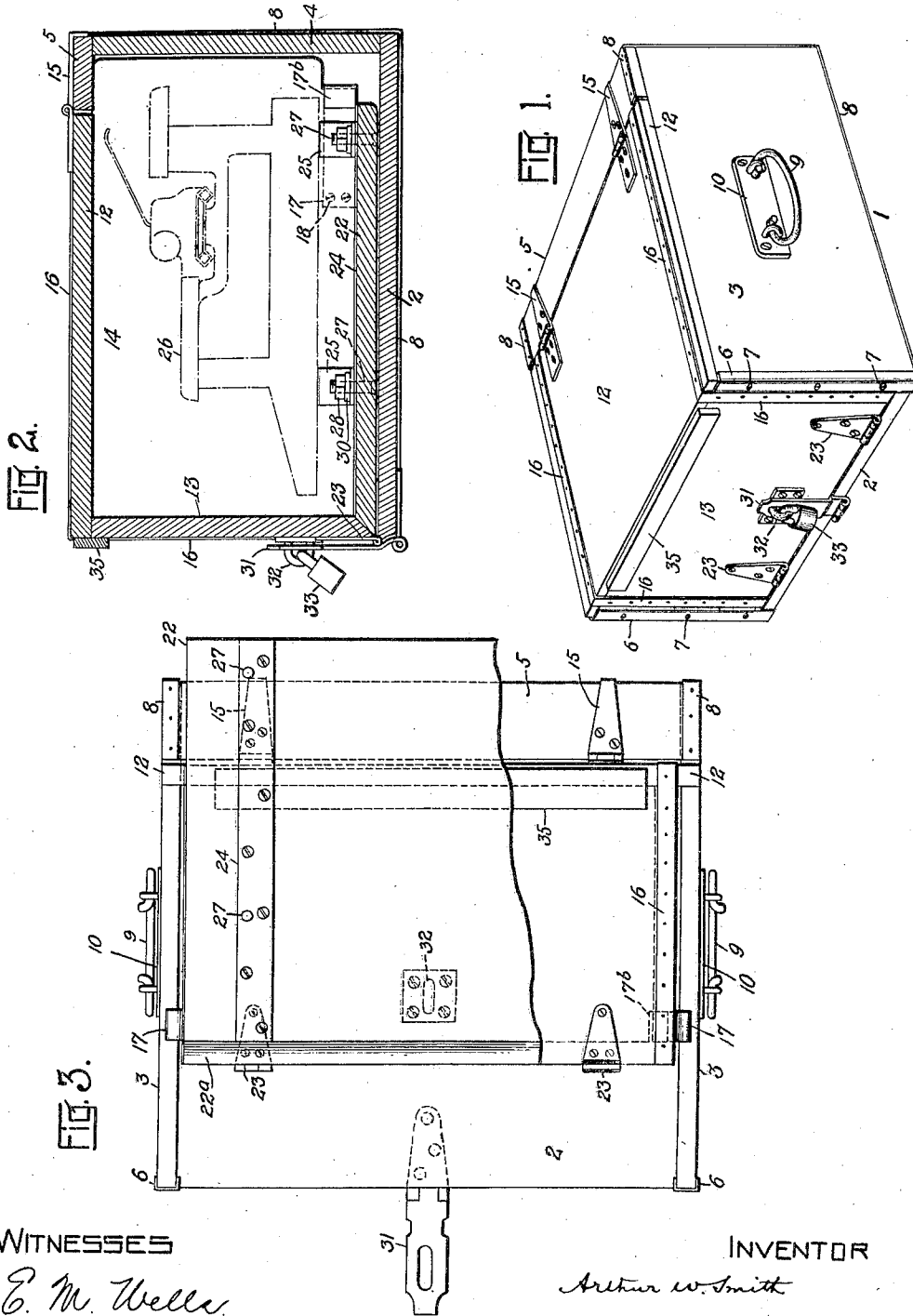


A. W. SMITH.
 CONVERTIBLE BOX AND STAND.
 APPLICATION FILED MAY 24, 1918.

1,382,393.

Patented June 21, 1921.

3 SHEETS—SHEET 1.



WITNESSES

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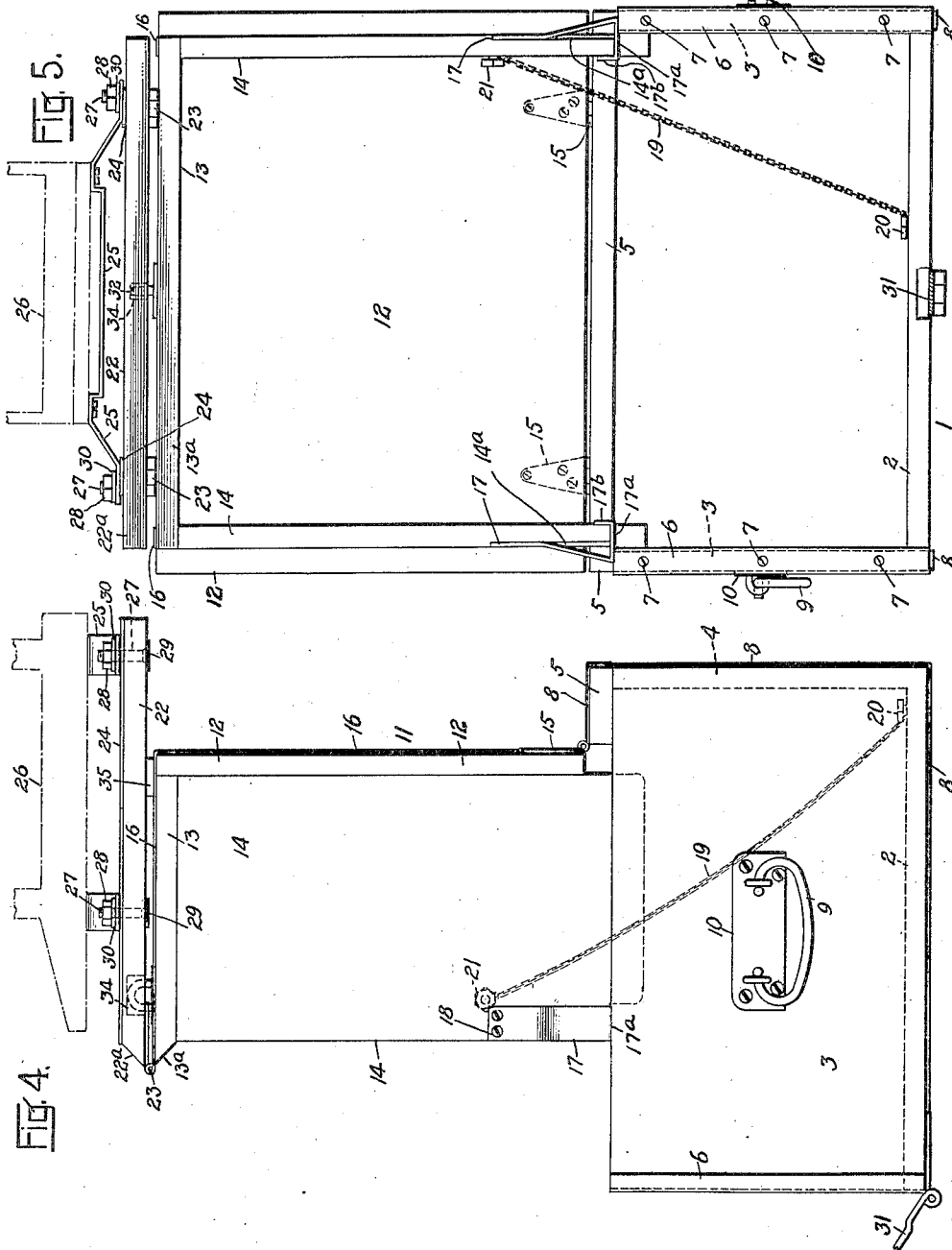
HIS ATTORNEY

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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

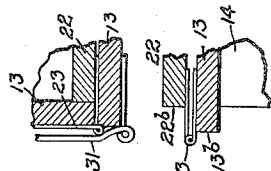


FIG. 8.

FIG. 7.

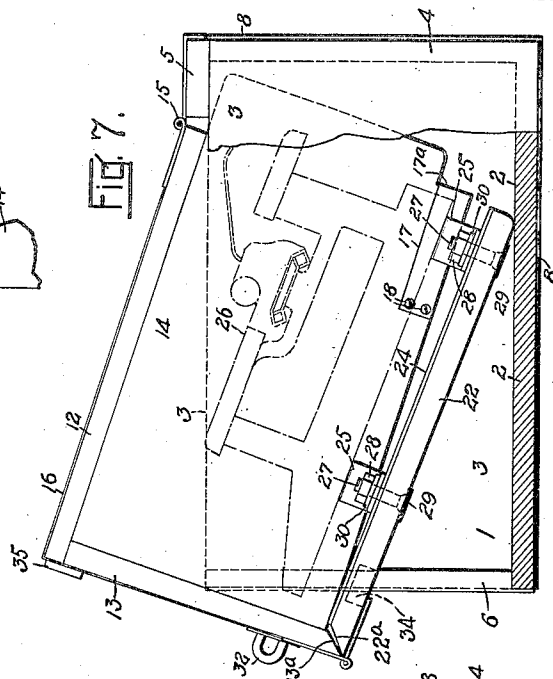
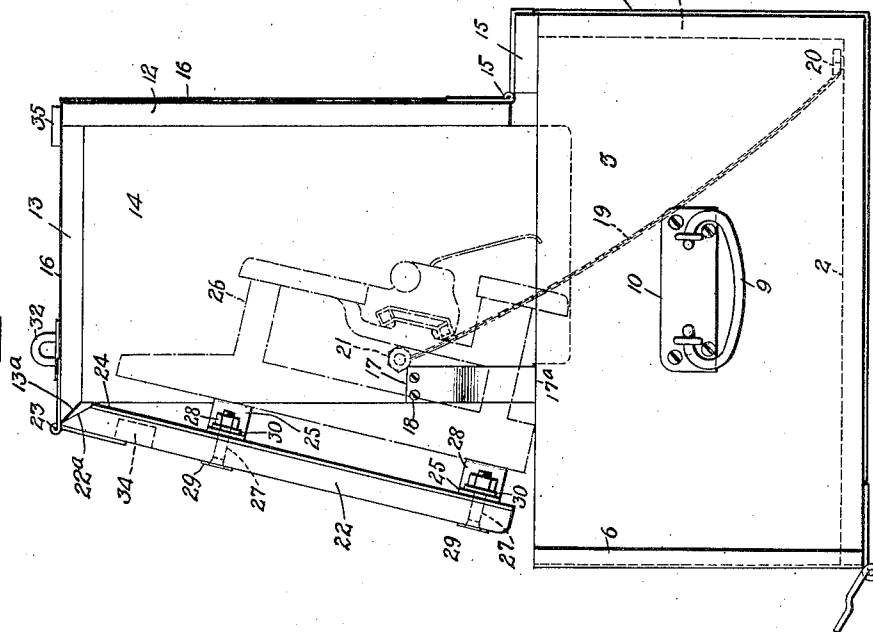


FIG. 6.



WITNESSES

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UNITED STATES PATENT OFFICE.

ARTHUR W. SMITH, OF NEW YORK, N. Y., ASSIGNOR TO REMINGTON TYPEWRITER COMPANY, OF ILION, NEW YORK, A CORPORATION OF NEW YORK.

CONVERTIBLE BOX AND STAND.

1,382,393.

Specification of Letters Patent. Patented June 21, 1921.

Application filed May 24, 1918. Serial No. 236,286.

To all whom it may concern:

Be it known that I, ARTHUR W. SMITH, citizen of the United States, and resident of the borough of Manhattan, city of New York, in the county of New York and State of New York, have invented a certain new and useful Convertible Box and Stand, of which the following is a specification.

My present invention relates to boxes or containers for wiring machines or other contrivances, and its general object is to provide a new and improved box of this character. More specifically, the object of my invention is to provide a combined packing or shipping box and writing support, the box being sectioned and readily convertible into an elevated stand to support the machine at a convenient height for writing, that is, at about the height at which it is usually supported on the ordinary writing table or cabinet.

To the above and other ends which will hereinafter appear, my present invention consists in the features of construction, combinations of devices, and arrangements of parts hereinafter described and particularly pointed out in the claims.

In the accompanying drawings which illustrate the preferred form of the invention,

Figure 1 is a perspective view of my improved box when closed.

Fig. 2 is a front to rear vertical sectional view of the closed box.

Figs. 3, 4 and 5 are respectively a top plan, a side elevation, and a front elevation, of my improved box when opened, extended or unfolded.

Figs. 6 and 7 are side elevations, the latter partly in section, showing different stages or steps in the process of closing or folding the box.

Fig. 8 shows a modification.

The box or case is a foldable or collapsible structure comprising two parts or frames hinged or pivotally connected. These parts or frames are preferably made of wood, and the base part or frame, designated as a whole by the reference numeral 1, comprises a bottom 2, parallel sides 3, a back 4, and a narrow cross piece 5 connected to the sides 3 and the back 4. The parts constituting the base frame are suitably secured together as by nails or wood screws, not shown. It will be noted that the front of the base is open

and the front edges or faces of the sides 3 are exposed. These edges are crosswise of the grain of the wood and to prevent chipping or splitting and otherwise to protect these exposed edges, they are covered by U-shaped shoes or protectors 6 of metal secured in place by screws 7. The base is also protected and reinforced by flexible metal straps or binding strips 8 which extend around it near its side edges and are nailed or otherwise suitably secured in place. These binding straps or strips do not, however, extend along the tops of the sides 3 and of course are not applied over or under the shoes 6. At its sides the base frame is provided with handles 9 of the ordinary style, the handle plates 10 being screwed to the sides 3.

The second frame, designated as a whole by the reference numeral 11 is likewise constituted of a number of wooden parts or pieces, nailed, screwed or otherwise suitably secured together, and comprises a top portion 12, a vertical front portion 13 and sides 14. The top portion 12 is substantially equal in width to the width of the base frame 1 but the sides 14 are secured to the top portion so as to fit inside the space between the sides 3 when the box is in folded or collapsed condition. The front vertical portion 13 is likewise of a width to fit between the sides 3, and the bottom edge of the front portion 13 may be beveled or inclined, as indicated at 13^a. Although for the sake of clearness the drawings, especially Fig. 3, show a space between the sides 3 and 14, nevertheless it is to be understood that in practice these sides fit as closely as possible, without obstructing free movement between the parts, in order to exclude dust and dirt when the box is closed. The two parts or frames 1 and 11 are pivotally connected or hinged by ordinary hinges 15 whose leaves are secured by wood screws or the like to the top 12 of the frame 11 and the part 5 of the frame 1. The side edge portions of the frame 11 are also protected or reinforced by flexible metal straps or strips 16 suitably secured in place. As thus far described the box when closed, collapsed or folded, is adapted completely to inclose or house, as in Figs. 1 and 2, the writing machine or other contrivance, and when fully opened, unfolded or extended, as in Figs. 3, 4 and 5, is adapted to support the machine on the

part 13, which is then horizontal, in such position that the operator will find the machine at a convenient height for writing. In order to hold the frame 11 extended or upright at right angles to the base frame or body 1, as illustrated in Figs. 3, 4 and 5, I provide removable foot pieces or angular metal latches 17 which may be of spring metal. These foot pieces are inset in the outer faces of the sides 14, these sides, which in a sense correspond to the legs of a table, being cut out at their front lower corners (viewed in raised position), as indicated at 14^a to provide seats for the foot pieces 17. The foot pieces are secured in place at their tops by screws 18 and comprise vertically disposed body portions having angularly arranged inwardly extending bottom portions 17^a at their lower ends, these body portions extending under or behind the bottoms of the sides 14 and terminating in upstanding extensions or stops 17^b. When the box is unfolded or extended, these foot pieces spring outward, due to their own inherent resiliency, to an extent limited by the contact of the stops 17^b with the inner faces of the sides 14, and as a result will overlie the tops of the sides 3 by which they will be supported. The leg portions 14 and table top portion 13 of the frame 11 are thus supported at the front when in extended positions, the rear portions of these parts being supported by the hinges 15. In order to prevent the part 14 from being thrown back unduly, it is preferable to provide means such as a flexible connection or chain, indicated at 19, the ends whereof are secured to anchorages 20 and 21 fixed respectively to the bottom 2 and the right-hand side portion 14. This chain is of such length that only a slight movement of the frame 11 backward past its vertical or upright position is possible, this movement relieving the foot-pieces 17 from the weight which they support and enabling them to be pressed inward to the inoperative position preliminary to folding the box.

Although not essential to the carrying out of my invention in all respects, I have found it desirable and convenient to attach to the box proper a baseboard or supporting member for the machine. This baseboard, indicated by the numeral 22, is usually and preferably of wood but may be of any desired material. It is hinged or pivoted to the part 13 by hinges 23, and its end adjacent the hinges may be beveled, as indicated at 22^a, to correspond to the bevel 13^a. The arrangement is such that when the box is closed the baseboard may rest on the bottom 2, as in Fig. 2, and when opened may be thrown back to rest on the top 13, as in Fig. 4. The top of the baseboard has extending from front to rear two parallel metal plates 24 which are screwed in place and to which in turn are secured a pair of resilient metal

cross bars or straps 25 fixed to the under side of the writing machine or other contrivance. In the present instance I have illustrated a Remington Junior typewriting machine, indicated in the drawings by the reference numeral 26, as secured to the cross bars 25, but of course it is to be understood that my invention is adapted for use in connection with other contrivances besides the typewriting machine shown. The straps 25 are detachably secured in any convenient way. In the present instance I have illustrated attaching means comprising conical headed screws 27 which pass through the baseboard and are secured by nuts 28. Washers 29 are interposed between the heads of these screws and the bottom of the baseboard, and smaller washers 30 are interposed between the nuts and the cross bars 25.

When closed the box is adapted to be locked by any suitable means. In the present instance I have illustrated a hinged hasp 31 secured at the front and middle of the bottom 2 and coöperating with a staple 32 fixed to the front 13. A padlock 33 locks the hasp and staple, thus locking the frames 1 and 11 together. When the box is unfolded or extended the staple 32 fits into a depression 34 in the bottom of the baseboard and the rear portion of the baseboard rests on a bar 35 of wood or the like fixed to the part 13, this bar compensating for the spacing upward of the baseboard from the part 13 at the front, due to the hinges, and maintaining the baseboard substantially horizontal when in writing position.

The box is shown in shipping condition in Figs. 1 and 2. In order to render the machine available for writing the padlock 33 is unlocked, the hasp and staple are disengaged and the hinged frame or section 11 is swung upward on the hinges 15 as pivots, thus bodily elevating and turning the front vertical side until it becomes horizontal, as in Figs. 3 to 5, constituting in effect a table portion. It will be understood that when the hinged section 11 is brought to its upright position, the latches or foot-pieces 17 will be released from confinement between the sides 3 and will spring outward laterally to operative position overlying the tops of said sides. The operator next grasps the lower edge portion of the baseboard 22 and swings it upward and rearward about the hinges 23 as a pivot until it and the machine 26 fixed to it reach the position of rest illustrated in Fig. 4. The parts are so proportioned and arranged that this brings the machine to about the height of the usual writing table or cabinet, the box structure having been converted by the described operation into an elevated open front typewriter stand comprising a table top and intermediate leg portions, the baseboard of the machine resting securely on the table

top. The opening at the front of the stand makes a convenient place for the knees and lower portions of the legs of the operator. It will be understood that while, as stated, it has been found convenient to attach the baseboard permanently to the table top, this is not essential and the baseboard, or in fact the machine without the baseboard, may be secured within the base portion by any of the ordinary securing devices in use and may be removed from the base and placed on the top 13 when the box has been unfolded or extended as has been described.

When the writing has been completed the carriage with the machine is tied down or secured as is usual in shipping and the baseboard carrying the machine is then swung upward, forward and downward to the position shown in Fig. 6. Next the operator presses in the foot-pieces or supporting latches 17 and, holding the baseboard pressed in, swings the frame 11 down about its hinges until the rear end of the baseboard contacts with the bottom or floor piece 2, as shown in Fig. 7, the contact edge of the baseboard being preferably rounded as shown. Thereafter, pressure on the baseboard is withdrawn and the operator simply completes the folding in and closing up operation. As the parts close together the space between the beveled faces 13^a and 22^a gradually closes, and when the box is completely closed the baseboard will contact with the bottom edges of the side pieces 14. The construction is such that the baseboard is confined between the bottom edges of the side pieces 3 and the upper face of the bottom 2, so that the machine will be securely held within the case when the box, having been closed as described and locked, is moved or handled in the course of transportation.

In Fig. 8 I have illustrated a slight modification whereby the beveled faces 13^a and 22^a are dispensed with. The baseboard instead is shortened and squared at its front as indicated at 22^b to cooperate with the end of the part 13 which is correspondingly squared as indicated at 13^b. This modified construction does away with thin beveled edges which might too easily be broken.

It will be seen that by my present invention I provide a strong, substantial and comparatively cheap shipping or packing box, case or receptacle, which is effective to protect the machine from the rough handling to which its housing or casing will commonly be subjected, especially under traveling conditions in the military service for which my improved box is more particularly designed. In order to render the machine available for use it is only necessary to unlock the padlock and unfold or extend the sectional box, converting it into an elevated typewriter stand, as has been described, the op-

eration being a comparatively simple one and both the opening and closing being accomplished readily and expeditiously.

Various changes besides those specified may be made without departing from my invention.

What I claim as new and desire to secure by Letters Patent, is:—

1. A typewriter packing box comprising a body, legs and top, and lateral, movable foot-pieces for supporting or connecting the legs on or to the sides of the body of the box proper, said foot-pieces being constantly connected to said legs and their ends resting on the sides of said body when the box is open.

2. A combined packing box and writing support for a writing machine comprising a box proper having a hinged top and a front side rigidly connected thereto, the rigid front side when the box is open being brought to an elevated horizontal position, in combination with a baseboard hinged at the lower edge of the front side, said baseboard being adapted to be swung over onto the horizontally disposed front side when the box is open, and said baseboard being adapted to lie at the bottom of the box and at right angles to the front when the box is closed.

3. A combined typewriter packing box and writing support comprising two connected parts which when in closed relationship fully inclose the typewriting machine and when brought into open relationship are automatically interlocked against closing and provide a stand which at one side is open and entirely unobstructed beneath the top on which the writing machine is adapted to rest, the open side affording access to a space partly inclosed by the other three sides which provide a support for the top both at its front and back.

4. A combined typewriter packing box and writing support comprising two box parts permanently connected together at the back, each part having two open sides, and means for supporting one part on the other at the front, the open sides being adjacent each other when the box is open so that a continuous unobstructed open side is provided extending entirely underneath the top, which is in a convenient position for supporting the writing machine.

5. A combined typewriter packing box and writing support comprising two box parts permanently hinged together, the parallel side pieces of one part fitting between the parallel side pieces of the other part when the box is closed, and means operating automatically to maintain the parts in abnormal relationship when the box is opened, each box part having two open sides which cooperate to provide a single unobstructed open side when the box is open, the open side

extending entirely under the top which is then at a convenient height for supporting the writing machine.

6. A combined typewriter packing box and writing support comprising two box parts permanently hinged together and provided with a baseboard permanently hinged to one of said box parts, the two box parts each having two open sides which cooperate to provide a single unobstructed open side when the box is open, the open side extending entirely under the top which is then at a convenient height for supporting the writing machine, the base board being adapted to be swung into position so as to rest horizontally on the top.

7. A combined packing box and writing machine support comprising a bottom, a back, and two sides all rigidly secured together; a hinged top, a front rigidly secured to the forward edge of said hinged top; and a base board hinged to the bottom of said front; whereby when the box is closed the base board lies within and at the bottom of the box, but when the box is opened the front occupies an elevated horizontal position and the base board is adapted to be swung over on top thereof and be supported thereby and also to support the writing machine at proper working level.

8. A combined packing box and writing machine support comprising a bottom, a back, and two sides all rigidly secured to-

gether; a hinged top, a front rigidly secured to the forward edge of said hinged top; two sides also rigidly secured to said hinged top, and a base board hinged to the bottom of said front and carrying the writing machine; said base board adapted to rest on the bottom of the box, with the writing machine upright, when the box is closed, and said baseboard being also adapted to rest on the front of the box with the writing machine upright when the box is opened for use.

9. A combined typewriter packing box and writing support comprising upper and lower sections, each section having two open sides, the two sections being hinged together and the upper section having two parallel rectangular sides adapted to fit in between two parallel rectangular sides of the lower section when the box is closed, the parallel sides of the upper section when the box is open serving with the parallel sides of the lower section as supports to sustain the weight of the typewriting machine.

Signed at the borough of Manhattan, city of New York, in the county of New York and State of New York, this 22nd day of May, A. D. 1918.

ARTHUR W. SMITH.

Witnesses:

CHARLES E. SMITH,
E. M. WELLS.