July 14, 1925. 1,546,116

C. H. BRADT

SUPPORTING MEANS FOR TYPEWRITING MACHINES

Filed Dec. 7, 1921 2 Sheets-Sheet 1

Fig.2.

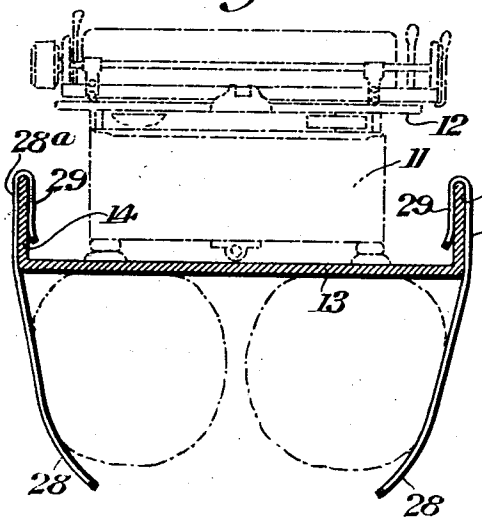


Fig.1.

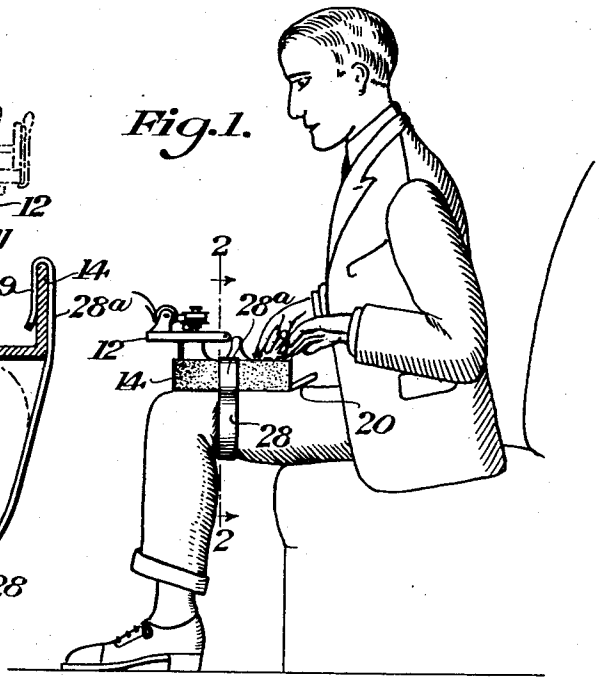


Fig.3.

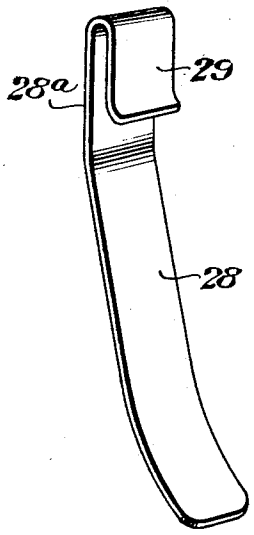


Fig.4.

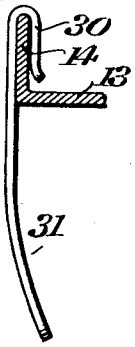


Fig.5.

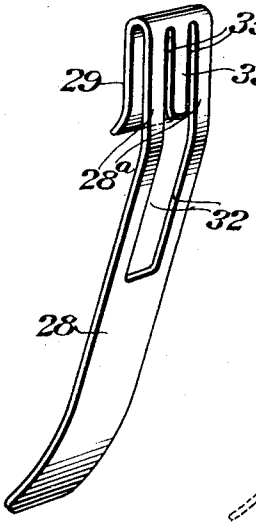
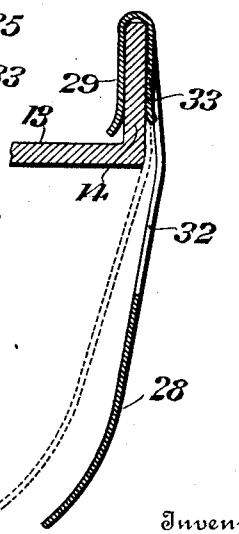


Fig.6.



Inventor

Charles H. Bradt

By

his Attorneys

July 14, 1925. 1,546,116

C. H. BRADT

SUPPORTING MEANS FOR TYPEWRITING MACHINES

Filed Dec. 7, 1921 2 Sheets-Sheet 2

Fig.7.

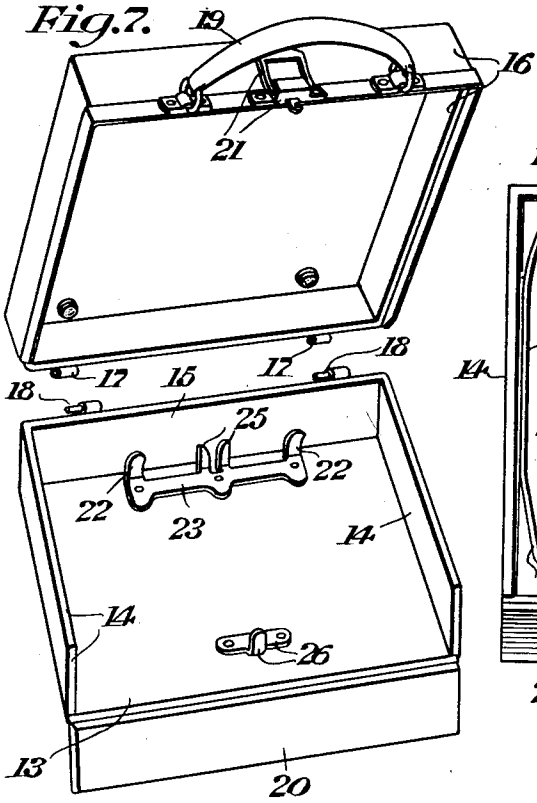


Fig.8.

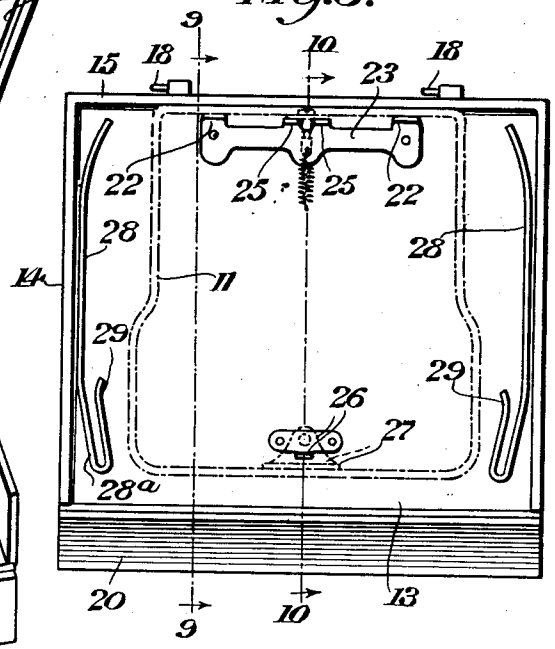


Fig.9.

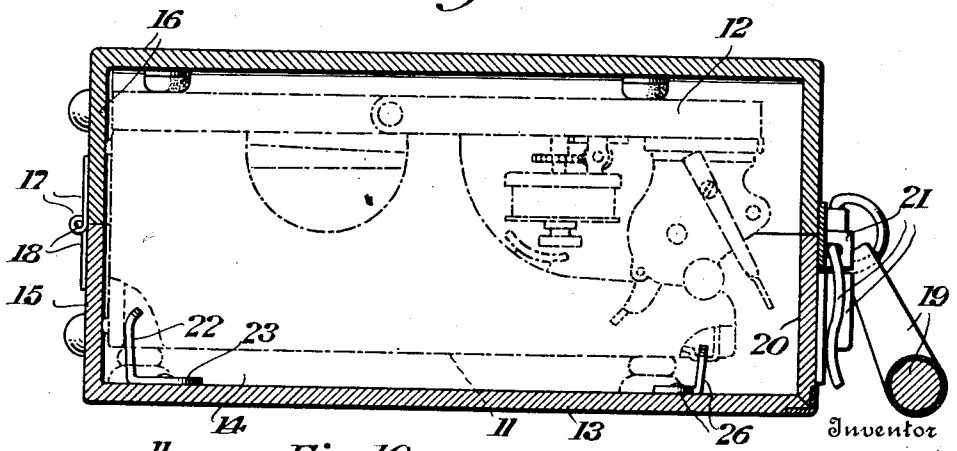
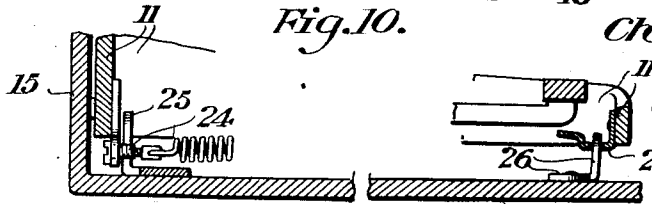


Fig.10.



Inventor

Charles H. Bradt

By

his Attorneys

Patented July 14, 1925. 1,546,116

UNITED STATES PATENT OFFICE.

CHARLES H. BRADT, OF GROTON, NEW YORK, ASSIGNOR TO CORONA TYPEWRITER COMPANY, INC., OF GROTON, NEW YORK, A CORPORATION OF NEW YORK.

SUPPORTING MEANS FOR TYPEWRITING MACHINES.

Application filed December 7, 1921. Serial No. 520,590.

To all whom it may concern:

Be it known that I, CHARLES H. BRADT, a citizen of the United States, and resident of Groton, in the county of Tompkins and State of New York, have invented certain new and useful Improvements in Supporting Means for Typewriting Machines, of which the following is a specification.

This invention relates to improvements in supporting means for typewriting machines, and has for its principal object to provide simple, efficient and inexpensive means for supporting a typewriting machine on the body of a typist in position for use. The improvements are especially applicable to encased portable typewriting machines and are designed to permit use of such machines without employing stands, tables, desks, or the like for supporting the same during operation.

To the foregoing and other ends, which will hereinafter appear, the invention consists in the features of construction, arrangements of parts, and combinations of devices set forth in the following description and particularly pointed out in the appended claims.

In the accompanying drawings,

Figure 1 is a side elevation showing one embodiment of the invention applied to the well-known Corona typewriting machine, the machine with its attached case section being shown supported on the lap of a seated operator in position for use.

Fig. 2 a section taken on the line 2—2 of Fig. 1, on an enlarged scale;

Fig. 3 a perspective view of one of the retaining members shown in Figs. 1 and 2;

Fig. 4 a fragmentary sectional view showing a modified form of retaining member;

Fig. 5 a perspective view of another form of retaining member;

Fig. 6 a vertical sectional view taken through the longitudinal center of a retaining member constructed as shown in Fig. 5, the leg-engaging portion of said member being shown flexed laterally;

Fig. 7 a perspective view showing the two sections of the carrying case detached;

Fig. 8 a plan view of the base section of the case, a part of the machine being shown in dotted lines and the retaining members being shown detached and placed within the base section;

Fig. 9 a sectional view of the closed case taken on the plane of the line 9—9 of Fig. 8, the machine proper being shown in dotted lines in its folded condition within the case; and

Fig. 10 a fragmentary sectional view taken on the line 10—10 of Fig. 8.

The invention is susceptible of embodiment in constructions other than those illustrated, and supporting means embodying the invention may be employed in connection with typewriters and other key-operated or key-controlled printing machines of various constructions.

Referring to the drawings by numerals, 11 designates the stationary frame part of the well known Corona typewriting machine and 12 the folding frame part thereof. This machine is adapted to be folded from an extended operative condition (illustrated in Figs. 1 and 2) into a compact inoperative condition in which it may be entirely enclosed within a carrying case, as shown in Fig. 9. The carrying case comprises a base section 13, having upstanding flanges or side edge portions 14 and a rear upstanding edge portion or flange 15, and a box-like cover or top section 16 detachably and pivotally held to the rear flange 15 of the base section by laterally separable hinge members 17 and 18. The top section is provided with a carrying handle 19 and the base section is provided with a front transverse hinged flap 20, said top section and flap being provided with cooperating parts of a hasp lock 21.

The frame 11 of the typewriting machine proper is provided with rubber feet resting on base 13 as shown in dotted lines in Figs. 2 and 9 and said machine is securely held to the base section of the case against relative movement thereon, the rear wall of the frame being forced down between flange 15 and springy metal fingers 22 on a plate 23 fastened to the base, and a screw 24 held to the frame passing down between two upstanding fingers 25 on said plate, while the upstanding arm of an angle bracket 26 held to the base engages in a slot in a bracket 27 held to the front transverse bar or portion of the frame 11. The machine is adapted to be operated, while frame 11 is attached to base section 13 of the case, upon removal or rearward swinging of the top section and movement of the folding part 12 into its normal extended operative position, and I

have provided means cooperating with the base section to securely support the machine upon the legs of a seated operator in position for operation.

Referring to Figs. 1 to 3 of the drawings, a pair of sheet metal retaining members are shown detachably held to the base section at their upper ends and having leg-engaging arms 28 depending below the base section and so shaped as to extend downwardly around the outer sides of and partly beneath the thighs of the operator when the base is placed upon the operator's lap. The retaining members shown in Figs. 1 to 3 are formed of relatively long and narrow flat strips of sheet steel hardened and tempered to render the members springy or resilient. The upper end of each retaining member is bent laterally and downwardly to form a resilient and substantially flat pressure arm 29 substantially parallel with the flat upper portion 28^a of arm 28 and preferably so spaced therefrom that the flange or upturned edge 14 of the base section will be frictionally clamped between arm 29 and the upper end 28^a of arm 28, as shown in Fig. 2. The flat perpendicular portion 28^a of arm 28 of the retaining member or clip is as long as the height of edge 14 of the base, or may be longer if desired, and arms 28 are curved or bent so as to extend downwardly and inwardly under the base. It will be obvious that the hook-like upper ends of the members may be readily attached to and detached from the base section, and that when said members are attached to the base section of the encased typewriter, said section with the attached typewriting mechanism may be securely supported on and clipped to the legs of a seated operator just above the knees by flexing arms 28 and passing the same down about the outer sides of the thighs. By pressing slightly outward on arms 28 with the legs, the operator may cause arms 29 to cramp against the inner faces of edges 14 of the base and press laterally outward in opposite directions thereagainst so as to securely hold the machine against shifting movements on the lap. The resilience of the retaining members is advantageous as the base section is gripped with a yielding pressure, the retaining members engage the legs with a yielding pressure, and the supporting means may be readily placed on and removed from the legs of the operator.

In Fig. 4 a rigid metal retaining member is shown having its upper end bent laterally and downwardly to form a rigid pressure arm 30 parallel with the upper end of a thigh engaging arm 31 the lower portion of which curves inwardly so as to extend partly under the thigh. Arm 30 is spaced farther from the upper end of arm 31 than the thickness of part 14 of the base section and when outward pressure is exerted on arm 31 arm 30 will cramp against the inner side of part 14.

In Figs. 5 and 6 a resilient retaining member or clip is shown, said member being constructed in the same manner as the member shown in Figs. 1 to 3, except that portion 28^a is slotted vertically along two parallel lines as shown at 35 to form a depending spring tongue 33 and portion 28 is cut away to form a relatively wide vertical slot 32 merging with slots 35. This construction increases the flexibility of the leg-engaging portions of the retaining members and provides a spring tongue which cooperates with arm 29 to frictionally grip edge 14 of the base section even after considerable outward flexure of arms 28, as shown in Fig. 6, whereby accidental fore and aft relative creeping between the base section and the retaining members, as well as rocking of the retaining members on the edge of flanges 14, is prevented. This construction also provides supporting means which may be readily and comfortably used by persons varying greatly in size and will very securely and steadily hold the machine on the operator's lap.

When not in use the retaining members may be detached and placed within the carrying case as indicated in Fig. 8.

What I claim is:

1. A retaining device for the purpose set forth, comprising a resilient sheet metal member having the upper end thereof bent laterally and then downwardly to form a short depending arm spaced from the main body portion of said member, said member having a resilient downwardly extending tongue stamped from the main body portion thereof opposite said depending arm.

2. A retaining device for the purpose set forth, comprising a resilient member formed with a short depending arm spaced from the upper end thereof and provided with a resilient depending tongue opposite said arm, said member having the lower portion thereof turned laterally and underlying said arm.

3. A holding device for gripping under outward lateral thigh pressure an upstanding side flange of a machine base resting on the lap of a seated operator, comprising a member having a relatively long and narrow body portion doubled upon itself at its upper end to form a depending flange-gripping arm spaced from the body portion, the body portion being substantially parallel with said depending gripping arm throughout the length of said arm and having a thigh-engaging portion extending downwardly and laterally across the vertical plane of said arm.

4. A holding device for encased portable typewriting machines having attached base

case sections provided with upstanding side flanges, comprising a resilient member having a laterally bent lower portion adapted to extend down the outer side and partly under the thigh of a seated operator and provided at its upper end with a downwardly facing hook-portion overlying the laterally bent portion and adapted to engage over a side flange of the base case section of a machine, said hook portion and laterally bent portion being adapted to prevent upward movement of a base section resting on the lap of a seated operator and said hook portion being adapted to grip a base section side flange with a cramping action under lateral pressure of an operator's thigh exerted outwardly against the lower portion of the member.

5. Detachable means for holding a flanged base member of a portable typewriter upon the lap of a seated operator, comprising a pair of independent and interchangeable retaining devices each having its upper end doubled upon itself to form a depending flange-gripping arm spaced from the main body portion of the device, the main body portion of the device being permanently bent laterally and extending downwardly and laterally across the plane of the depending flange-gripping arm.

6. Supporting and carrying means for portable typewriting machines, comprising a base member having upstanding edges flanges, a cover detachably held to the base member and forming with said base member when attached thereto an enclosing case for a typewriting machine, a handle secured to the cover member, means carried by the base member for detachably holding a typewriting machine against accidental movement relatively to the base member on the face of said member at which the edge flanges are located, and a pair of holding devices adapted to fit within the case together with a typewriting machine and also adapted to be attached in upright positions to opposite edge flanges of the base member when the cover member is removed and the base member placed in upright position on the lap of a seated operator, each holding device having a hook-like end portion adapted to be engaged over one edge flange of the base member when said member is placed upright on an operator's lap and having a main body portion extending well below the base in position to be engaged by the outer side of the adjacent thigh of the operator when the hook-like end portion is engaged over an edge flange of the base member.

In testimony whereof I hereunto affix my signature.

CHARLES H. BRADT.