

F. A. HART.
STAND FOR TYPE WRITING MACHINES, &c.
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3 SHEETS—SHEET 1.

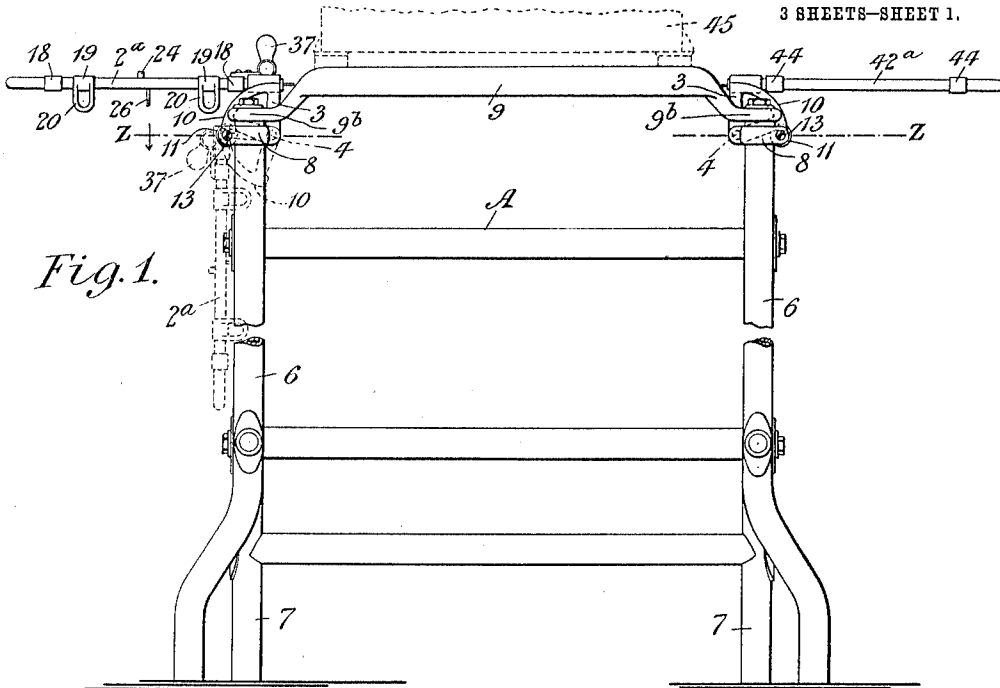
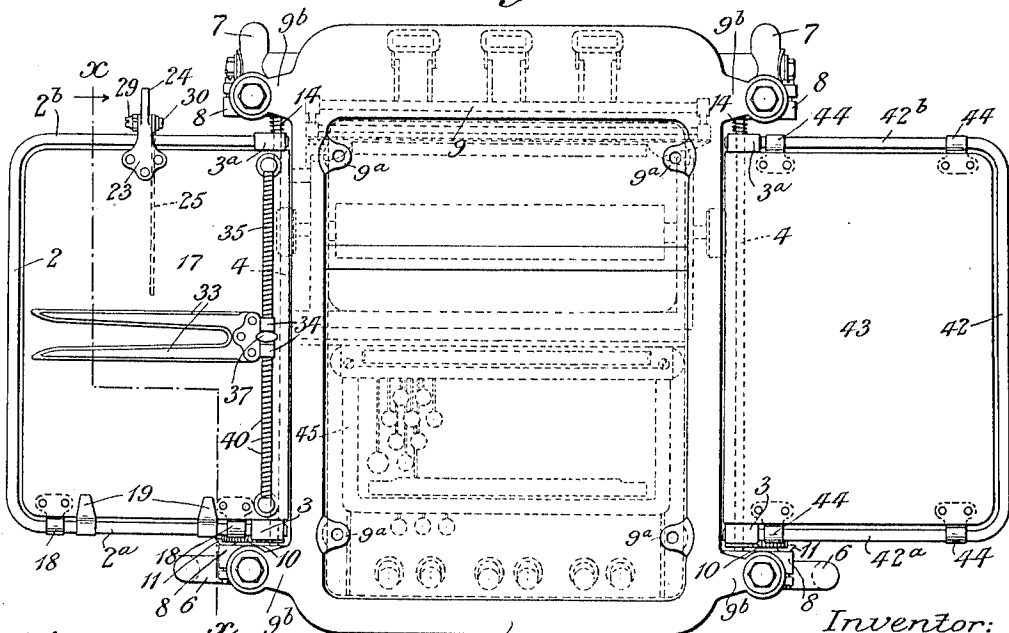


Fig. 1.

Fig. 2.



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3 SHEETS-SHEET 3.

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STAND FOR TYPE-WRITING MACHINES, &c.

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To all whom it may concern:

Be it known that I, FREDERICK A. HART, a citizen of the United States, residing in Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Stands for Type-Writing Machines, &c., of which the following is a specification.

This invention relates to typewriting, adding machine and other machine stands.

The main object of the invention is to provide a self-contained leaf, readily attached to the stand, and easily and quickly adjustable from idle to operative position. The leaf preferably includes a copy-holder to be tilted upwardly, when the leaf is raised, and sustained by a support which automatically engages the leaf when the copy-holder is tilted, and is held out of the way when the copy-holder is in normal position.

Other objects and advantages will hereinafter appear.

In the accompanying drawings, Figure 1 is a front view of a table or typewriter stand equipped with the invention, the leaves being shown raised, in full lines. Fig. 2 is a plan of Fig. 1. Fig. 3 is an enlarged detail edge view of a leaf raised, partly broken away to show the copy-holder, dotted lines showing the position of the leaf when lowered. Fig. 4 is a section of a leaf on line $x-x$ of Fig. 2, dotted lines showing the position of the copy-holder and its support in operative positions. Fig. 5 is a detail cross-section on line $w-w$ of Fig. 4, of the handle by which the line-indicating finger is operated. Fig. 6 is a side view of the hinge-connection between the bracket and supporting leg of the tilting copy-holder, parts being shown in section. Fig. 7 is a plan of the same, partly broken away to show the construction. Fig. 8 is a fragmentary cross-section, showing the position of the leaf and its supporting latch when the leaf is raised and while the latch is out of engagement with its stationary catch. Fig. 9 is a detail section taken on line $y-y$ of Fig. 3, showing the paper clamp on the copy-holder. Fig. 10 is a horizontal cross-section on line $z-z$ of Fig. 1, looking in the direction of the arrow, showing the hinge between the leaf and the stand. Fig. 11 is a detail perspective view of the leaf-supporting latch, rock shaft and leaf-support-

ing arms, at a point when the leaf is intermediate its operative and idle positions, showing the latch pressed against the catch to act as a brake.

The stand or table comprises suitably braced front and rear legs 6 and 7, supporting a skeleton bed or top 9, having outwardly projecting brackets 9^b by which the bed is connected to the legs. Lugs 9^a project from the bed into the central space inclosed thereby, to support a writing or adding machine 45 (indicated by dotted lines in Figs. 1 and 2).

As will be seen, the machine 45 occupies practically the entire table top; and to provide a support for books or papers from which the operator desires to copy, I have contrived a leaf 2, 17, readily attachable to the stand, to fold or swing downwardly from its operative position. The leaf at the left (in the drawings), comprises a frame 2, 2^a, 2^b, carrying a copy-holder 17, said frame being rigidly connected by a pair of supporting arms 3, 3^a, to a pintle or rock shaft 4 journaled in bearings 5, (see Fig. 10), formed in collars 8, attached to and detachable from the forward and rear legs 6, 7 (usually tubular) at one side of the stand below the brackets 9^b. No especial skill is required in attaching the leaf to the stand, it being simply necessary to tighten the collars firmly on the legs.

The collars 8 are secured to the legs below the table top, and said leaf is carried at the outer ends of the supporting arms, 3, 3^a, which project from the rock shaft between the bracket 9^b, and support the leaf when elevated, about on a plane with the top 9 of the stand.

By hinging the leaf as shown, with the pintle 4 at or near the inner sides of the legs 6, the leaf when in disuse, is caused to lie closely against the table, making a compact structure; while the arms 3 and 3^a extend up far enough from the hinge to give the desired elevation to the leaf when in working position; said arms 3 and 3^a also permitting the leaf to hang about vertically on the outer sides of the legs, as seen in dotted lines, at Fig. 1. It will be seen that the inner edge of the leaf when extended, lies closely adjacent to the side of the table top 9 to prevent articles from falling down between the top and the leaf.

To hold the leaf up, a latch 10 is secured

rigidly thereto, the lower free end of said latch 10 engaging a catch 11 mounted on the stand, said catch consisting of a nut threaded on the bolt 13, which secures one of the collars 8 on a leg of the stand. The leaf is swung up until the latch 10 escapes the catch (Fig. 8), whereupon a spring 14 shifts the leaf, with its supporting arms 3, 3^a and the pintle or rock shaft 4, in the bearings 5, bodily toward the right (Figs. 4 and 8), so that the foot 15 of the latch locks over the catch and supports the leaf. The latch may have a stop 16, pressed by the spring 14 against the catch or abutment 11. The latch 10, which may project from one of the arms 3, is preferably arc-shaped, as shown in Fig. 11, and concentric with the hinge pintle, to bear against the catch while the leaf is being swung upwardly, and thereby prevent the lateral shifting of the leaf by the spring until it has been fully raised. A brace 10^a to strengthen the latch, may extend from the free end of the latter to the rock shaft 4. To drop the leaf, it is first pressed edgewise toward the left, (Fig. 4), against the tension of spring 14, and caused to rise slightly, so as to release the latch 10 from the catch 11, as shown in Fig. 8. The catch 11 and latch foot 15 may be beveled to facilitate this releasing operation. The leaf may now drop freely; the latch 10 acts also as a brake, the spring 14 pressing the side of the latch against the outer face of the catch, as in Fig. 11, throughout the entire downward swing of the leaf to inoperative position, to retard the descent of the leaf, and prevent it from banging against the stand.

The copy-holder or plate 17, forming a part of the leaf, is hinged to one end 2^a of the frame 2, as by straps 18, to enable the copy-holder to be inclined or tilted (see dotted lines, Fig. 4), the edge of the plate being rolled over a wire 17^a for rigidity. A bracket 23 on the copy-holder engages the opposite end 2^b of the frame to limit the swing of the copy-holder. The copy-holder is raised to the position shown in dotted lines in Fig. 4, by a handle 24, the copy-holder pulling with it a supporting leg 25, pivotally connected to the bracket 23 by a bolt 30 and nut 29, said leg being drawn across the end 2^b of the frame until a recess 27 at the free end or foot 26 of the leg catches over said end. To lower the copy-holder, the leg is disengaged from the frame. The leg may be pressed against the frame end 2^b by a spring 28 as the copy-holder is raised, to insure that the recess 27 shall catch over said frame end. Said leg is connected to the bracket so as to lie against the outer face of the frame end 2^b, and when the copy-holder is lowered, the spring operates to swing the leg up under the frame 2, 2^b, where it is out of the way, (full lines, in Fig. 4), and by clasping the frame end 2^b between itself and

the bracket 23, operates to lock the holder against accidental tilting, when the leaf is dropped. The tension of the spring 28 is regulated by the nut 29, to which one end of the spring is connected, the opposite end being connected to the leg (as shown in Figs. 6 and 7), said nut being held where adjusted by a pin 31 seated in the bracket and fitting any one of a series of notches 32 in the nut.

A finger 33 extends across the copy-holder to enable the operator to readily follow the copy. Said finger is connected by a sleeve 34 to rock upon and slide along a helix or screw constituting a cylindrical rack 35 at one side of the copy-holder, and has a handle 37 whose hub 38 is slidable on the rack and accommodated in a recess in the sleeve 34, said handle being foldable, as shown in Fig. 3, for compactness. The handle is arrested in operative position, (Fig. 5), by flattening the hub as at 41, to engage the wall of the slot in the sleeve 34. A spring-pressed detent 39 cooperating with the rack teeth 40, prevents accidental movement of the line indicator.

A paper clamp 19 swings on the shaft 2^a of the frame, to tilt with the copy-holder and to catch over the bottom edge of the paper thereon, said clamp having a handle 20. A boss 21 on the clamp bears upon the walls of a groove 22 in the shaft 2^a to hold the clamp frictionally where adjusted. The opposite side of the stand may also be equipped with a leaf, if desired, that shown comprising a frame 42, 42^a, 42^b hinged to the stand, similarly to the leaf 2, 17, and carrying a plate 43 fixed thereto by the clips or straps 44.

Variations may be resorted to within the scope of the invention, and portions of the improvements may be used without others.

Having thus described my invention I claim:

1. The combination with a support comprising legs and a top to carry a machine, of a leaf hinged to the legs of the support and shiftable in a direction transversely of its swing, a latch to sustain the leaf in raised position, a catch releasably engaged by the latch, means to shift the leaf bodily to effect the operative engagement of the latch and catch, and a stop on the latch to arrest the lateral shift of the leaf when the latch and catch are brought into alinement.

2. The combination with a stand comprising legs, and a top having inwardly projecting brackets connected to the legs, of collars having bearings and removably mounted on the legs beneath the brackets, a rock shaft in the bearings, arms projecting from the rock shaft, and a leaf supported by the arms on a plane about on a level with the top.

3. The combination with a support having legs and comprising a top, of a hinge on

said support, a leaf slidably mounted on said hinge, so that when released it lies close to a leg of said support, a spring urging said leaf toward one end of said hinge, an arm on said leaf arranged to be intercepted by an abutment on said support to arrest the lateral shift of the leaf when said spring moves said leaf in its horizontal position, and an extension on said arm holding said leaf against sliding unless further raised. 10

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."