United States Patent

Ridge

[15] 3,638,776

[45] Feb. 1, 1972

[54] STENOGRAPHIC MACHINE WITH COLLAPSIBLE PAPER WEB HOLDERS

[72] Inventor: Ben C. Ridge, 2107 Sir Francis Drake Blvd., Fairfax, Calif. 94930

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[52] U.S. Cl. ..... 197/186 A, 197/9

[51] Int. Cl. B41j 29/02

[58] Field of Search ..... 197/186, 186 A, 186 B, 180, 197/9

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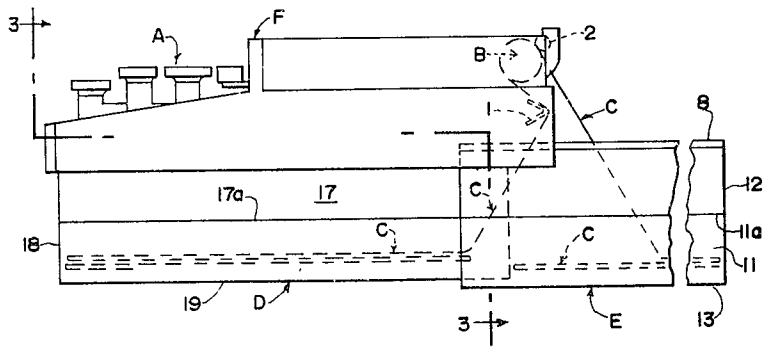
Primary Examiner—Ernest T. Wright, Jr.

Attorney—Alexander Riaboff

[57] ABSTRACT

A stenographic machine with collapsible paper web holders that reduces the overall height of the secretarial machine by about 1½ inches and reduces the height of the court reporter model by about 2½ to 3 inches. This permits the improved stenographic machine to be carried in a casing of considerably less width than is now possible with the standard stenographic machine. Novel means is provided for mounting the improved stenographic machine on a tripod support, the actual connection between the machine and the support being made at one side of the collapsible paper web holders so as not to interfere with these holders when they are enlarged for holding the paper web.

2 Claims, 8 Drawing Figures



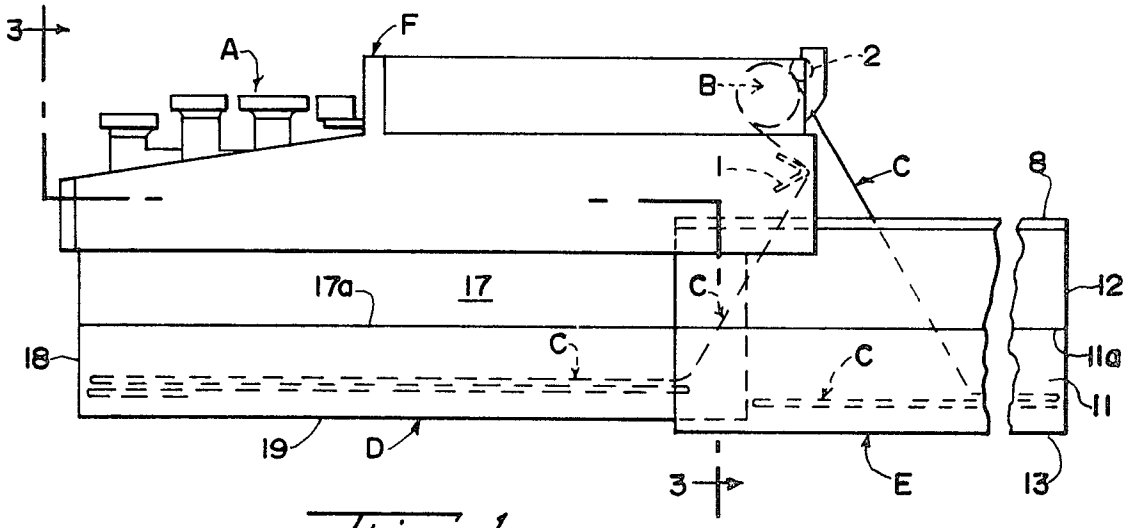


Fig-1

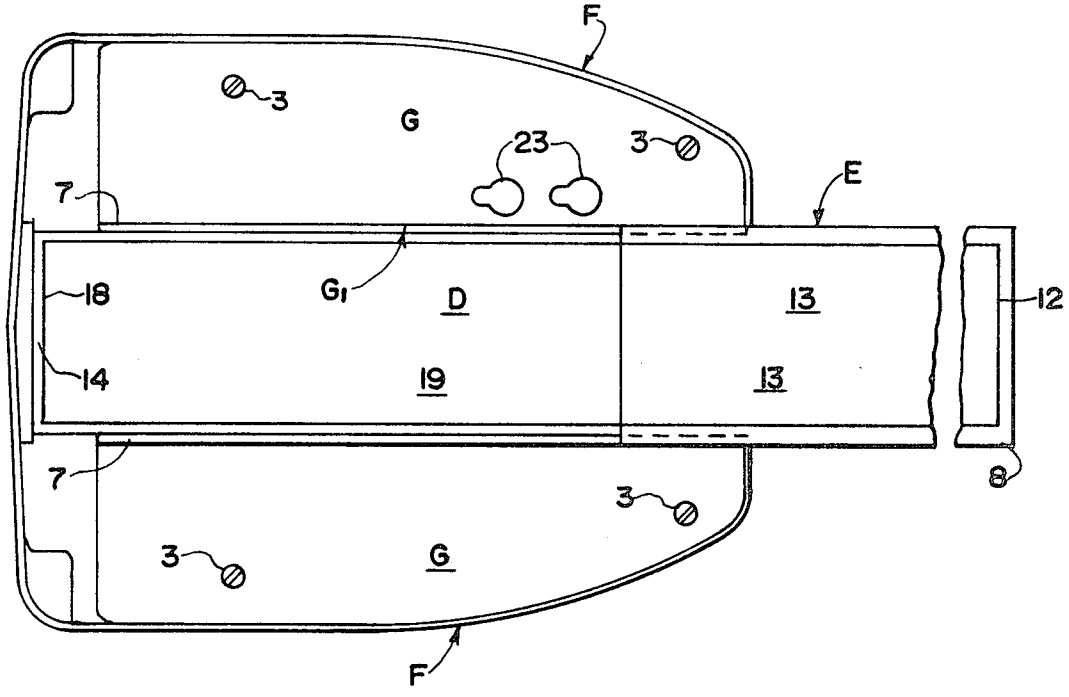


Fig-2

INVENTOR.
BEN C. RIDGE
BY Alexander Riaboff
ATTORNEY

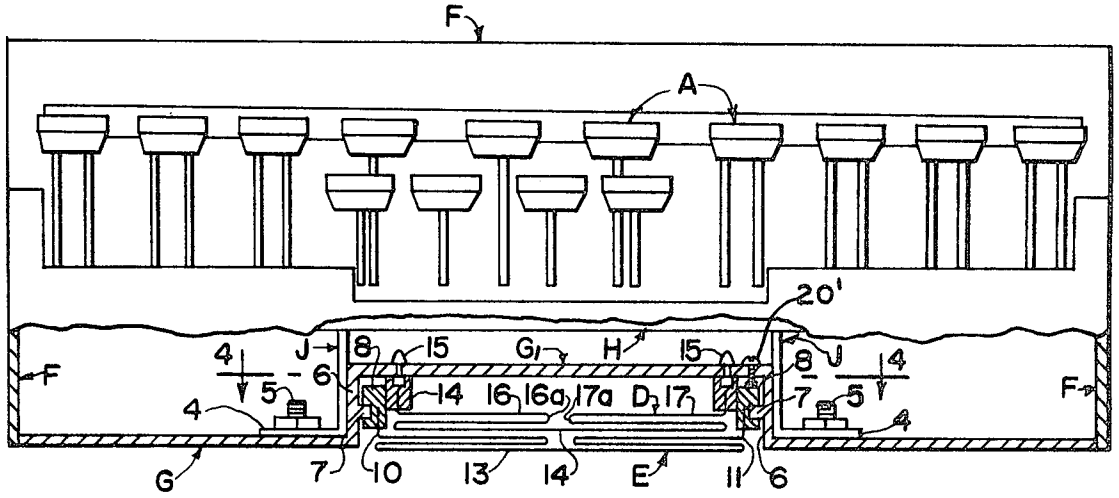


Fig-3

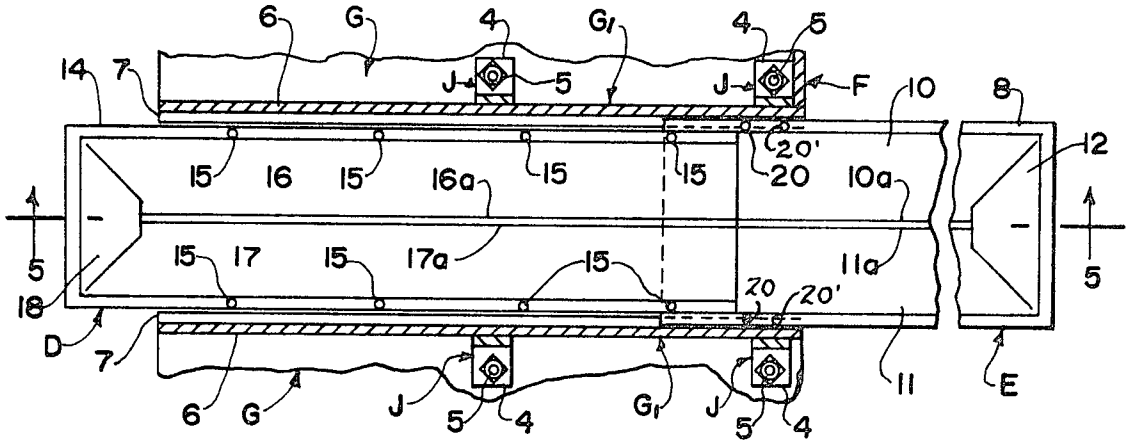


Fig-4

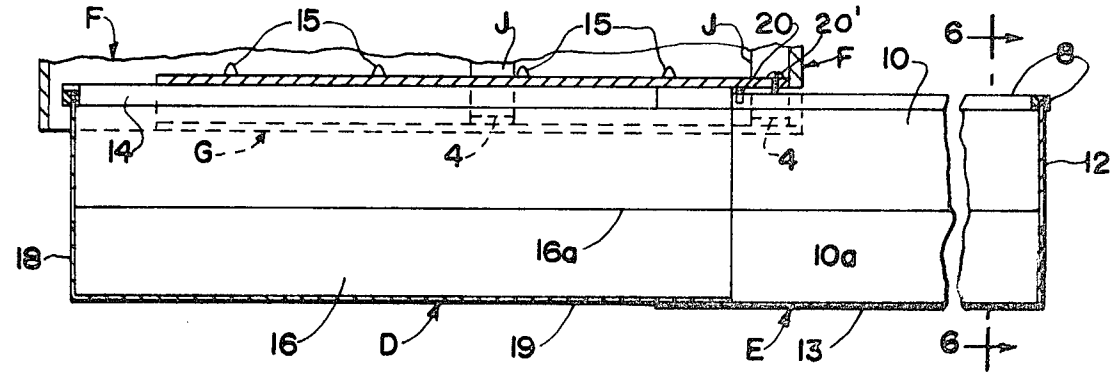


Fig-5

INVENTOR.
BEN C. RIDGE

BY Alexander Raboff

ATTORNEY

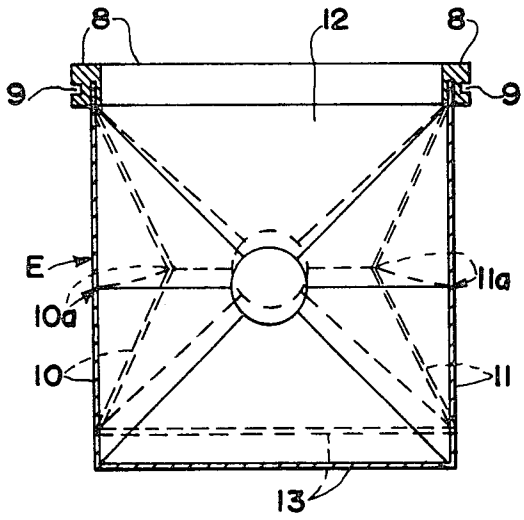


Fig-6

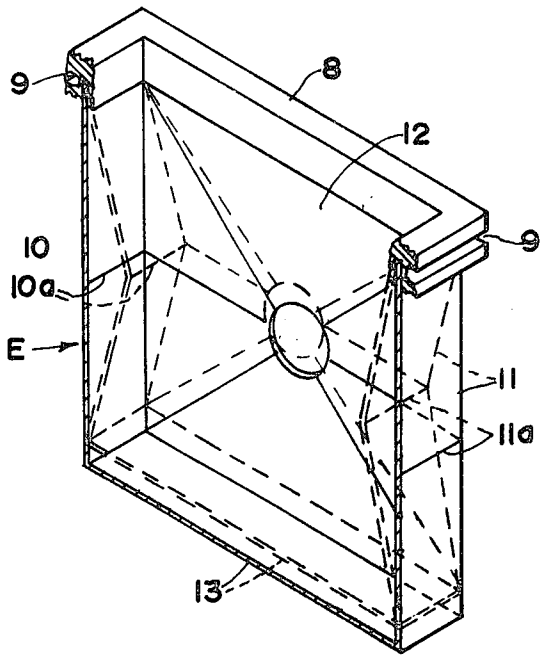


Fig 7

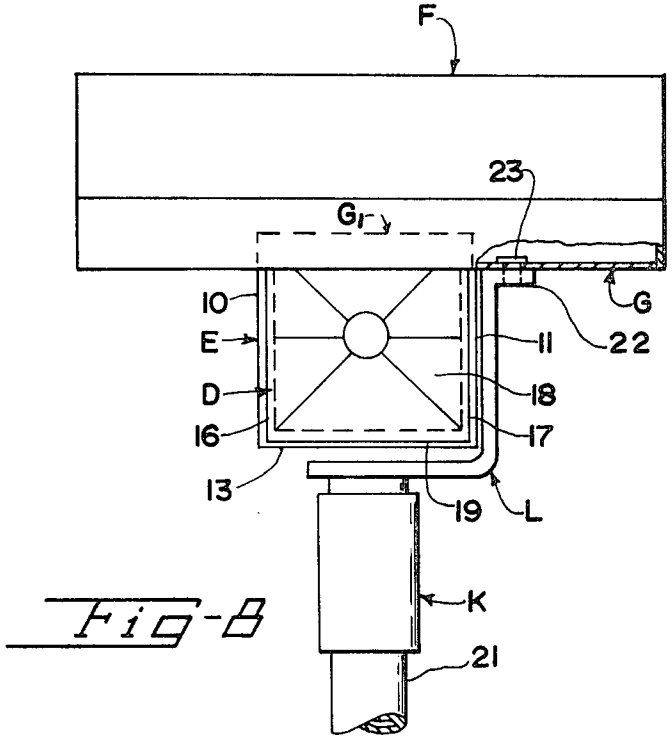


Fig-8

INVENTOR.
BEN C. RIDGE

BY Alexander Rabkoff

ATTORNEY

STENOGRAPHIC MACHINE WITH COLLAPSIBLE PAPER WEB HOLDERS

BACKGROUND OF THE INVENTION

1. Field of the Invention

The paper web container in the standard stenographic machine practically doubles the overall height of the machine. This necessitates a carrying case of unusual width for the machine and the machine itself is bulky. The making of the paper web holders collapsible when the machine is not used, permits the overall height of the machine casing to be materially reduced with the result that the machine casing is far less bulky and it can be carried in a case of far less width.

2. Description of the Prior Art

The U.S. Pat. to John G. Sterling, No. 2,319,273, on a stenographic machine shows the paper receiving tray received within the casing that houses the operating parts. This of course increases the overall height of the machine casing and this is precisely what I am overcoming in the present case.

SUMMARY OF THE INVENTION

An object of my invention is to supply a kit by means of which the standard stenographic machine whether of the secretarial type or the court reporter type can be provided with collapsible paper web receiving holders. The mechanism of the stenographic machine is not changed but the height of the casing is materially reduced or a new casing of a less height is provided. Also a new baseplate is used and it carries a stationary paper web holder and a slidable holder that can be extended for receiving the paper web on which characters have been printed by the operation of the machine. Both holders are foldable or collapsible when not in use and are received in a shallow recess formed in the baseplate. Novel supporting means is used on a tripod for connecting the baseplate thereto so that the collapsible paper web holders can expand to their fully open form, the stationary holder receiving the fresh supply of the paper and the slidable holder receiving the web after the machine has printed characters thereon.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a side elevation of the device shown on a smaller scale then full size and with the paper web holders in operative position.

FIG. 2 is a bottom plan view of FIG. 1.

FIG. 3 is a full size sectional view of the stenographic machine and is taken along the line 3—3 of FIG. 1 and shows the keys in elevation. The paper web holders are collapsed and the thickness of the collapsible walls of the holders are shown by a single line for the sake of clarity.

FIG. 4 is a horizontal section at the same scale as FIG. 1, and shows the paper web holders collapsed and is taken along the line 4—4 of FIG. 3.

FIG. 5 is a longitudinal section through the paper web holders and is taken along the line 5—5 of FIG. 4.

FIG. 6 is a transverse vertical section through the slidable paper web holder and is taken along the line 6—6 of FIG. 5. The section shows the holder in the extended position in full lines and the dashlines indicate how the holder may be collapsed into a closed position.

FIG. 7 is similar to FIG. 6, but the portion of the paper web holder is shown in an isometric view.

FIG. 8 is a front view of the device with a portion of the baseplate being shown in section to illustrate how the device may be removably supported by a tripod without the latter interferring with the paper web holders expanding into operative position.

DESCRIPTION OF THE PREFERRED EMBODIMENT

In carrying out my invention I make use of a standard stenographic machine including a standard set of keys indicated generally at A, and a paper web feed platen, shown by dotted lines at B, in FIG. 1. Where the term standard stenographic machine is used, I mean the machine disclosed in the John G. Sterling, U.S. Pat. No. 2,319,273, for a stenographic machine. The paper web C, is fed from my new type of collapsible stationary paper web holder D, past a guide shoe 1, shown by dotted lines and forming a part of the stenographic machine, thence around the platen B, where the web receives stenographic characters printed thereon, when an operator actuates the keys A and finally into my new drawerlike collapsible and slidable paper-receiving holder E, that has been moved into operative position to project beyond the rear of the machine. A roller 2 keeps the paper web C in contact with the platen B by pressing the web C against the platen B in the usual manner and, means, not shown, is provided in the standard stenographic machine for rotating the platen B for advancing the paper web C automatically after the operator actuates one or more keys A for printing characters on the web C in the usual manner. I will describe in detail hereinafter the particular construction of the collapsible stationary and slidable paper web-receiving holders D, and E, respectively.

The casing or housing usually provided to enclose the operating mechanism of the standard stenographic machine is made high enough to enclose the two standard paper web holders, not shown, one of them being stationary and adapted to receive a fresh supply of the paper web, and the other being slidable into an extended position to the rear of the casing and adapted to receive the web after the stenographic characters have been imprinted thereon. In the case of the standard secretarial model, the two paper holders are not as deep as those provided for the court reporter model. Therefore the casing or housing now provided for the standard machine has a certain height for the secretarial machine and has a greater height for the court reporter model. By using my collapsible paper web holders D, and E, I can reduce the height of the secretarial machine casing by about 1½ inches and the height of the court reporter machine casing by about 2½ to 3 inches. This reduction in casing height forms a more compact machine and permits it to be enclosed in a carrying case of far less width than is now required to receive either the secretarial or court reporter models. Both standard models have the same operating mechanism, as disclosed in the John G. Sterling, U.S. Pat. No. 2,319,273, but the secretarial one has comparatively shallow paper web holders that cannot store a sufficient quantity of the paper web to be usable in courts. With my new collapsible paper web holders, D, and E, taking the place of the web holders provided in the standard model, only one model need be provided and can be used either for secretarial or court reporting work.

The standard casing or housing F for the stenographic machine can have its lower portion cutoff to reduce its overall height or I can substitute a new casing F of less height than the standard one, see FIG. 1. The casing F, is secured to a new baseplate G, by screws 3, or other suitable fastening means, see FIG. 2. My new baseplate G is substituted for the one provided with the standard stenographic machine and it has a channel-shaped elongated portion G1 that forms a recess extending upwardly from the undersurface of the baseplate, the recess G1 being deep enough to receive both the stationary and slidable paper web holders D and E in their collapsed or folded positions. A part of the operating mechanism for the standard stenographic machine is indicated generally at H, in FIG. 3, and supporting legs J for the mechanism extend downwardly and are provided with foot portions 4 that are secured to the baseplate G, by bolts 5. In FIG. 4, I illustrate four legs J secured to the baseplate G. The portions of the lower ends of these legs J have been cutoff to reduce their overall length and the shortened legs J have foot portions 4 bent outwardly and provided with holes for receiving the bolts 5 that secure the baseplate G to the legs J.

I will now describe the special construction of the paper web-receiving collapsible holders D, and E, and how they are supported by the channel portion G1 of the baseplate G. Reference to FIGS. 3 and 4 shows the vertical sidewalls 6 of the inverted channel-shaped portion G1 provided with in-

wardly extending and horizontally disposed guide ribs 7. The slidable paper web-receiving holder E comprises a U-shaped frame 8 whose side members have longitudinally extending grooves 9, see FIGS. 6 and 7, that slidably receive the guides or ribs 7, as shown in FIG. 3.

The slidable paper web-receiving holder E, is illustrated in detail in FIGS. 3 to 7, inclusive. The holder E has two sidewalls 10 and 11, one end wall 12, and a bottom wall 13, see FIGS. 6 and 7. These walls 10, 11, 12 and 13 are preferably made of Nylon, Dacron or a woven fabric. The two sidewalls 10 and 11 are foldable inwardly along median fold lines 10*a* and 11*a* when the holder E, is collapsed and the end wall 12 is also foldable inwardly at the same time while the bottom wall 13 moves upwardly toward the U-shaped frame 8. The dashlines in FIGS. 6 and 7 illustrate how the sidewalls 10 and 11 and end wall 12 move inwardly during the collapsing of the holder E. Both FIGS. 3 and 4 show the walls 10, 11, 13 of the holder E in folded or collapsed position while FIGS. 1 and 5 show the same holder E in fully open position. The upper edges of the sidewalls 10 and 11 are received in grooves 9*a* provided in the under surface of the U-shaped frame 8, see FIG. 3, and especially FIGS. 6 and 7 and in this way the foldable portion of the holder E, is permanently secured to the U-shaped frame 8.

The paper web holder D, also has a U-shaped frame 14 whose side members may be secured to the web of the channel portion G1 in any manner desired, see FIG. 3. The side members are shown provided with plastic pins 15 (see also FIG. 4) that are received in openings in the web portion of the channel portion G1, -61 also FIG. $) and the pins 15 have compressible heads that will enlarge to normal size after being forced through the openings and will prevent any retraction of the pins 15 from the web portion of the channel portion G1. In this way the U-shaped frame 14 of the paper web holder D, is secured in place to the channel portion G1. The holder D, has two sidewalls 16 and 17, one end wall 18, and a bottom wall 19, see also FIGS. 4 and 5 where the sidewalls 16 and 17 are shown folded in FIG. 4 and extended in FIG. 5. The walls 16 to 19 are preferably made from the same material as described for the walls 10 to 13 inclusive for the paper web holder E. The two sidewalls 16 and 17 of the holder D, are foldable inwardly along median lines 16*a* and 17*a* collapsing the holder D and these fold lines 16*a* and 17*a* are in alignment with the median fold lines 10*a* and 11*a* of the sidewalls 10 and 11 in the slidable holder E. The end wall 18 of the holder D is also foldable inwardly at the same time while the bottom wall 19 moves upwardly toward the U-shaped frame 14. FIGS. 3 and 4 show the holder D in collapsed or folded position while FIGS. 1 and 5 show the holder D in fully open position. The upper edges of the sidewalls 16 and 17 and the upper edge of the end wall 18 are received in grooves provided in the underside of the U-shaped frame 14, see FIGS. 3 and 5. In this way the foldable portion of the holder D, is permanently secured to the U-shaped frame 14.

The two paper web holders D, and E cooperate to form an extensible paper web holding and receiving container. The inner ends of each holder are not provided with end walls and the inner ends of the sidewalls 10 and 11 and the bottom wall 13 of the holder E, overlap to a slight extent the adjacent inner ends of the sidewalls 16 and 17 and the bottom wall 19 of the holder D when the holder E is moved into its fully extended position as shown in FIGS. 1 and 5. A stop pin 20 is mounted on one of the legs of the U-shaped frame 8, see FIG. 4, and a screw 20′ is received in a threaded opening provided in the web of the channel portion G1, see FIG. 3. The shank of the screw 20′ extends down into the path taken by the stop pin 20 when the holder D is moved into extended position. The stop pin 20 will strike the shank of the screw 20′ and prevent further opening movement of the holder D. If it is desired to fully remove the holder D, the baseplate G can be removed from the casing F and then the screw 20′ may be retracted to permit the stop 20 to move thereby.

When the slidable holder E is fully extended the holder D can receive a fresh supply of either a secretarial amount or a court reporter amount of the paper web C, and the extended holder E will receive the paper web C after it has passed through the secretarial machine and an operator has imprinted shorthand characters thereon in the usual manner.

In FIG. 8, I disclose a means for removably mounting my improved standard stenographic machine on a tripod support without the mounting means interfering with the collapsible paper web holders D and E when they are in fully open position. The tripod is indicated generally at K, and it includes an extensible standard 21 mounted on three tripod legs, not shown. An angle-shaped bracket L, is secured to the top of the standard K, and it has a horizontal lip 22 designed to contact with the undersurface of the baseplate G of the machine indicated schematically at F, in this Figure. The lip 22 of the bracket L has upstanding headed pins 23 that are designed to be received in keyhole slots 24, provided in the baseplate G, see also FIG. 2. After the heads of the pins 23 are inserted into the enlarged portions of the keyhole slots 24 in the baseplate for the stenographic machine, this baseplate G is shifted with respect to the lip 22 of the bracket L for moving the shanks of the pins 23 into the reduced portions of the slots 24. In this manner the stenographic machine is secured to and supported by the tripod K. The angle-shaped bracket L provides space for the paper web holders D, and E to expand into their fully open position.

After the stenographic machine has been operated, the paper web C is removed from the holders D, and E, and the machine is freed from its supporting bracket L. The slidable holder E, can now be moved into its closed position where its frame 8 will be entirely received within the channel G1 of the baseplate G. The two holders D, and E are then collapsed so as to be entirely received within the channel G1, as clearly shown in FIG. 3. The machine can now be placed in its travelling container, not shown, which is of a width considerably less than that required for the standard machines.

The U-shaped frames 8 and 14 for the collapsible paper web holders E and D, respectively, are preferably made from rigid reinforced plastic, such as Teflon. The frame 8 for the holder E can slide easily on the guide ribs 7 on the channel G1, see FIG. 3, when the frame 8 is made from this material. A kit can be provided to be used by a person who desires to change his standard secretarial or court reporter stenographic machine into one of reduced height. The paper web container in the standard machine practically doubles the height of the machine.

The kit would comprise a casing F which would be much more shallow in height than the casing now provided for the standard stenographic machine. A new baseplate G would be provided that has its central channel G1 extending upwardly from the plate G, see FIG. 3, to form a recess that is deep enough to receive the two paper web holders D, and E when in their collapsed or folded position. The standard stenographic machine baseplate has a downwardly extending trough and my new baseplate G would take its place. Two collapsible paper web holders D and E in the kit would be substituted for the paper container in the standard machine. The holder D, lies in the base channel G1, and the holder E, is the outer one and it can slide with respect to the holder D, which is the inner one. The four legs J of the standard stenographic machine would have their ends cutoff a length of about 1½ to 2 inches and then the legs J would have their new end portions bent at right angles to form the feet 4 and these would be secured to the new baseplate G, by the bolts 5. The tripod K would have the angle-shaped bracket L secured thereto so as to connect to the baseplate G, see FIG. 8, at one side of the collapsible paper web holders D, and E. The bracket L supports the baseplate G of the stenographic machine above the tripod K, to provide sufficient space to permit the holders D, and E to be fully expanded.

I claim:

1. In a stenographic machine:

a. a baseplate having a channel-shaped portion opening out to the undersurface of the plate;

b. a first paper web holder having a first U-shaped frame secured to the web part of the channel-shaped portion; and having foldable sidewalls and a bottom, the bottom and sidewalls being received within the channel-shaped portion when the sidewalls are folded into their collapsed position;

c. a second paper web holder having a second U-shaped frame lying substantially in the same plane as said first U-shaped frame and being slidably mounted within the channel-shaped portion, said second holder having foldable sidewalls and a bottom that constitute a continuation of the sidewalls and bottom of said first holder when said second holder is moved into its extended position, the bottom and sidewalls of the second holder being received within the channel-shaped portion of said baseplate when said second holder is slid so as to be received within the channel-shaped portion of said baseplate and the sidewalls of the second holder are folded into their collapsed position.

2. In a stenographic machine:

a. a baseplate having a shallow recess opening out to the under surface of the baseplate;

b. a stationary paper web holder having foldable sidewalls, rear end wall and bottom, received within said recess when said walls and the bottom are folded into their collapsed position, said holder being secured to the baseplate; and

c. a slidable paper web holder having foldable sidewalls, front end wall and bottom, said slidable holder being slidably mounted in said recess with respect to the stationary holder, said slidable holder, when in inoperative position, substantially enclosing the stationary holder, and located within said recess;

d. the sidewalls and the bottoms of said holders, when said holders are in extended position, being aligned to form a continuous paper holder from the rear end of the stationary holder to the front end of the slidable holder;

e. said holders projecting below the underside of the baseplate when in extended operable position, and occupying only said recess, when in folded position.

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