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PAPERHOLDING ATTACHMENT FOR TYPEWRITERS

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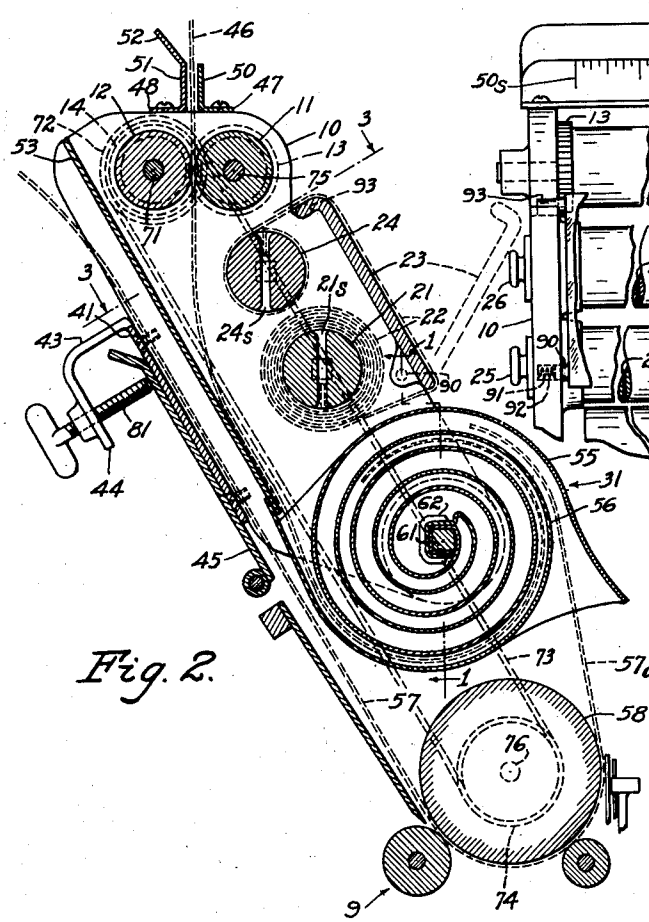


Fig. 2.

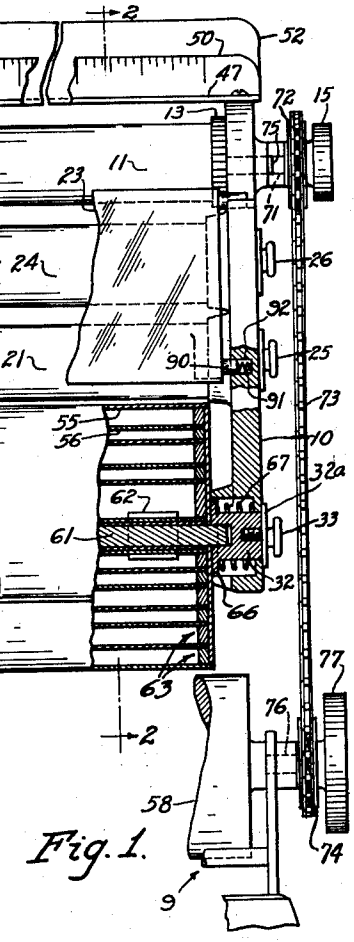


Fig. 1.

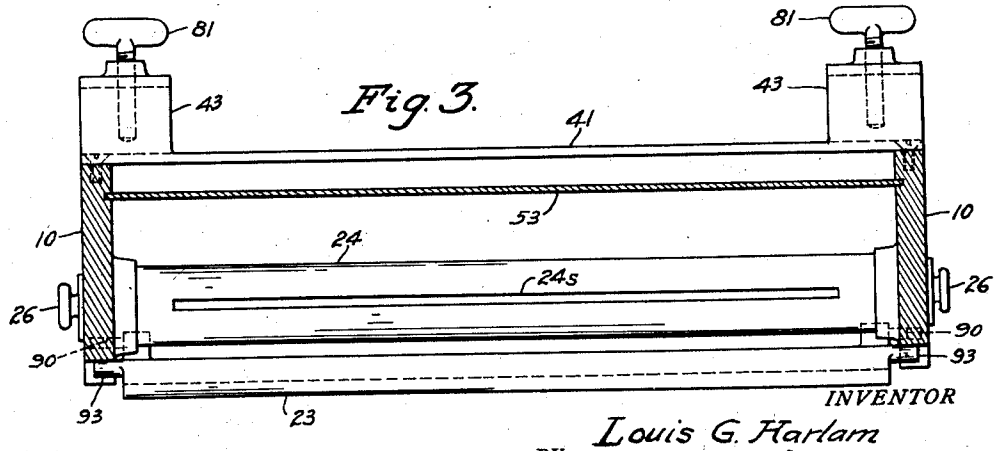


Fig. 3.

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PAPER-HOLDING ATTACHMENT FOR TYPEWRITERS

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4 Claims. (Cl. 120—30)

This invention relates to a copyholding attachment for typewriters, and includes also a holding means to receive and contain the paper which is being typed upon and also a means for supporting paper to be used for making memoranda upon as the typing is being done.

Among the objects of the invention are to provide a copy holding device which can be conveniently attached to and detached from a typewriter and will not only support the matter which is being copied by the typist, but will also be constructed and arranged to receive and house the paper as it is typed upon, also house the copy sheet completely out of the way or sight; to provide improved means for supporting in a more convenient position the matter to be copied; to provide for supporting both the copy and the typed matter in a better position for being inspected by the typist as the work proceeds; to provide the attachment with means for supporting and progressively advancing an additional strip of paper on which any desired memoranda may be written as the work of typing the copy proceeds; to provide a device of the above stated kind which can be conveniently attached to and detached from different makes of typewriters; and to otherwise improve upon and simplify the construction of copy-holding devices of the kind to which the invention pertains.

The invention also includes a new article of manufacture adapted to be separately made and sold and capable of being manually attached to and detached from various makes of typewriters now on the market, to carry the sheets used by typists.

Other objects, advantages and features of invention will hereinafter appear.

Referring to the accompanying drawing, which illustrates what is at present deemed to be a preferred embodiment of the invention,

Fig. 1 is a fragmental front elevation of the attachment separately shown, a portion of the view being sectioned on the plane indicated by the line 1—1 on Fig. 2.

Fig. 2 is a vertical midsection of the attachment shown in its mounted position, fragments of the upper portion of the typewriter being included in the view in order to show how the device is mounted.

Fig. 3 is a transverse section on line 3—3 of Fig. 2.

Referring in detail to the drawing, the principal parts of the attachment for the typewriter 9 are the twin end bearing members 10, one of which is shown in the right hand portion of Fig. 1, the supplementary typewriter paper guide rollers 11 and 12 which have their bearings in the upper portions of the bearing members 10 and which are respectively provided with gears 13 and 14 at each end which mesh with each other, the roller 12 having an operating handle 15 projecting outwardly from each of the bearing members 10; the supply roller 21 from which is fed a sheet or roll 22 for the typist to use to make memoranda upon as the work proceeds, the backing plate 23 across the face of which said memoranda sheet is fed, and the take-up roller 24 upon which said memoranda sheet is wound, said rollers 21 and 24 being both removable and respectively provided at each side of the structure with operating handles 25 and 26; and the housing cylinder 31 removably supported by shaft portions formed as socket members 32. The parts so far described pertain to the various rotatable parts with which the attachment is furnished and to the means for supporting these parts. The attachment also includes a rear cross piece or metal strap 41 which is secured by screws or otherwise to the back side of each of the twin bearing members 10 and is furnished with angular hanger members 43, the terminal arms 44 of which may be hooked behind the conventional typewriter paper guide plate 45.

As a feed guide for the sheet 46 from which the typist copies, and as a means to further stabilize the structure of the frame portion of the device, which is manually attachable to and detachable from a typewriter, a pair of angle irons 47 and 48 are secured by screws or otherwise to the top of the end pieces 10. Said angle iron members are thus maintained in an adjacent, parallel spaced apart relation to each other. The front angle iron member 47 has an upwardly extending guide flange 50 having on it a scale 50s, and the other angle member 48 has an upwardly directed guide flange 51 furnished along its upper edge with an outwardly deflected lip 52. Between these flanges the aforesaid sheet 46 is fed downwardly over the front face of an inclined guide plate 53 to the housing cylinder 31 already mentioned.

Describing in detail the housing cylinder 31, said cylinder consists of a tubular structure comprising two spiral plates 55 and 56 which are coiled within each other in a noncontacting radially spaced apart relation to each other, thus maintaining two spiral chambers within said tubular structure, one of said chambers opening upwardly at the back side of the spiral to receive the infed copy sheet 46, while the other of said

chambers opens downwardly at the front side of the spiral to receive the typed portion 57a of each sheet 57 as it is delivered from the typewriter roller 58, supported in the usual manner on the typewriter carriage. Each of said plates 55 and 56 forms a plurality of coils on all sides of the axis of the spiral structure, hence the coiled portion of each of the sheets 46 and 57a which is contained within said coiled structure is kept out of contact with itself even when it is made up of a plurality of coils. This insures non-smut of typing thereon.

As an aid to mounting and properly supporting the aforesaid spiral structure, the two spiral sheets or plates have a common closure or head 59 at each end and also have a central square shaft 61 and channel shaped clamping clips 62 which cooperate with said shaft to grip together the inner edge portion of the spirals, as shown in Fig. 1. By adding the central shaft 61 to the other supporting means for the two spiral plates, thinner, less expensive sheet material may be used to form the spiral portion of the structure without danger of the sheet being sprung out of shape.

In order properly to space apart the spirals at each end of said spiral structure, spiral spacing strips 63 are inserted between the coils and are adhered or otherwise secured in their proper positions.

Concentrically through the housing cylinder 31 extends a square shaft 61 having end portions which extend into the rotatably adjustable members 32 already mentioned. Said socket members have flanges 66 around their inner ends and against each of these flanges presses a spiral spring 67 which normally maintains the socket members pressed inwardly. Each of said socket members 32 has its outer portion fitted rotatably within a bearing aperture provided for it in the lower part of the bearing member 10 at its side of the device, a centrally apertured disk 32a having a somewhat greater diameter than the outer end of said socket member, being secured to said member by means of a screw 33 which is tapped centrally into said socket member. In order to detach the square shaft 61, the operator will apply traction to the heads of the screws 63 to withdraw said socket members against the opposition of the springs 67. Said cylinder may be either transparent or opaque.

Each sheet 57 to be typed upon is inserted between the sheet or plate 53 and the typewriter guide plate 45 and passes downwardly to the typewriter roller 58.

When the housing member 31 is put into place, the socket members 32, rotatable for adjustment purposes and having square sockets to receive the ends of the square shaft 61, are turned to adjust said shaft to the proper rotatable position, shown in Fig. 2, wherein said shaft is frictionally held by the springs 67.

In order to provide an operating connection between the conventional typewriter paper feed roller 58 and the pair of copy feeding rollers 11 and 12 already mentioned, the roller 12 is provided with a mounting shaft 71 which projects through and beyond its knob 15, and the projecting portion of this shaft has secured to it a sprocket wheel 72 over which passes a chain 73 which in turn passes over a lower sprocket wheel 74 secured to a projecting portion of the shaft 76 of the aforementioned roller 58. The conventional operating knob or disk 77 of said roller 58 is secured to the terminal part of said projecting portion of said shaft 76. The front roller 11 which cooperates with the driving roller 12, is furnished with a mounting shaft 75 having a projecting end portion which carries the already mentioned gear 14 of the roller.

By preference and as shown the spiral space 85 which received the typed upon paper, together with carbon copies, is made wider than the spiral space 86 which holds the copy sheet 46.

Preparatory to operating the device, the hooked attaching members 43 will be placed around the upper portion of the typewriter paper guide plate 45 and the clamping screws 81 carried by said members will then be screwed down as shown in Fig. 2 to retain the attachment securely in its operative position. After this has been done, the backing plate 23 is swung forwardly, for example, to the position indicated by dotted lines in Fig. 2, thus affording access to the lower roller 24 which is then removed, and after the memoranda sheet has been wound upon said roller 24, or else slipped thereover in an already rolled up form, said roller is replaced, and the outer end portion of the memoranda strip is fed under the lower edge of the backing strip and thence upwardly across said strip and is then attached to the upper roller 21, whereupon the backing strip may be swung back to rest in the inclined position shown in dotted lines in Fig. 2.

At this time (or previously if desired) a sheet 46 of matter to be copied from will be fed down between the rollers 11 and 12 at the top of the attachment, until only the first line or two at the top of said sheet remains in sight to be read above the upper edge of the front flange 50 shown in the upper portion of Fig. 2. Then the paper sheet 57 to be typed upon is fed into the back part of the attachment just in front of the conventional typewriter paper guide plate 45, the lower edge portion of said sheet being brought up around the typewriter roller 58 into position for beginning typing thereon. As the typist's work proceeds, the turning of the roller 58 each time the typewriter carriage is shifted to type a new line will, through the sprocket wheels and sprocket chain which have been described, cause the rollers 11 and 12 to feed the typist's copy matter upwardly to bring new lines into view to copy from.

It is to be understood that the socket members shown in the right hand portion of Fig. 1 for receiving the square shaft ends are duplicated at the opposite end of the structure; and, in view of the description of these parts which has already been given, the releasing of the shafts from the sockets preparatory to removing the rollers 21 and 24 and the cylindrical housing 31 will be understood. Ordinarily it will not be necessary to remove said cylindrical housing during the usual course of operating the device, for the sheets of paper contained therein can, as a rule, be pulled out therefrom by taking hold of their projecting edge portions. The removal of said cylinder may however become necessary if repairs are needed.

The memoranda sheet rollers 21 and 24 are respectively provided with diametrical slots 21s and 24s to receive and aid in attaching the end portions of the memoranda sheet 22.

The swingable backing strip 23 carries trunnions 90 at its lower corners which enter sockets 91 in the bearing members 10, said sockets containing centering springs 92 which allow the plate to be shifted sufficiently for removal.

Stop lugs **93** project from the upper corners of the plate **23** to rest upon adjacent parts of the main bearing members **10**.

I claim:

1. In a device of the kind described, a tubular structure comprising two spiral plates of sheet material coiled within each other, a frame comprising end members whereby said plates are supported in non-contacting radially spaced relations to each other, thus maintaining two spiral chambers within said tubular structure, and means to detachably support said frame upon the upper part of a typewriter with one of said spiral chambers opening upwardly in a position to have fed into it a sheet of paper containing copy for the typist and with the other of said chambers opening downwardly in a position to have fed into it the typed sheets.

2. The subject matter of claim 1 and, means for manually detaching and replacing said tubular structure.

3. In a device of the kind described, a tubular structure comprising two spiral plates of sheet material coiled within each other, a frame comprising end members whereby said plates are supported in non-contacting radially spaced relations to each other, thus maintaining two spiral chambers within said tubular structure, and means to detachably support said frame upon the upper part of a typewriter, one of said spiral chambers having an intake opening at the rear side of said structure which is directed upwardly, the other of said spiral chambers having an intake opening at the front side of said spiral structure which is directed downwardly, means for feeding the paper typed upon upwardly from the front side of the typewriter roller into said downwardly directed opening, and means to feed a copy sheet for typing upwardly out of said spiral chamber from said upwardly directed opening.

4. The subject matter of claim 3 and, a horizontally disposed indicator strip mounted upon the frame in a cooperative relation to said feeding means.

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