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1,964,371

TYPEWRITING MACHINE

Filed Aug. 24, 1929

2 Sheets-Sheet 1

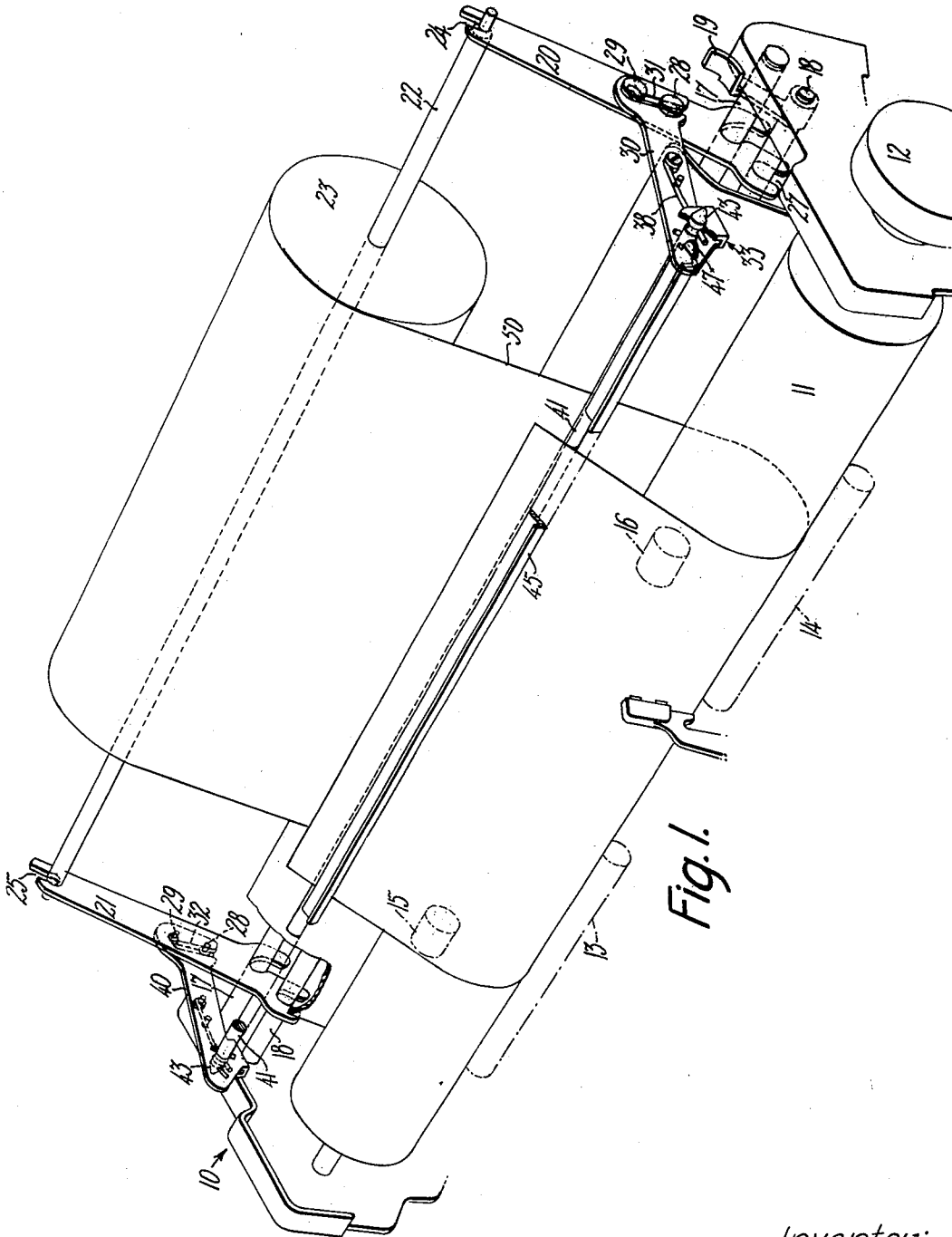


Fig. 1.

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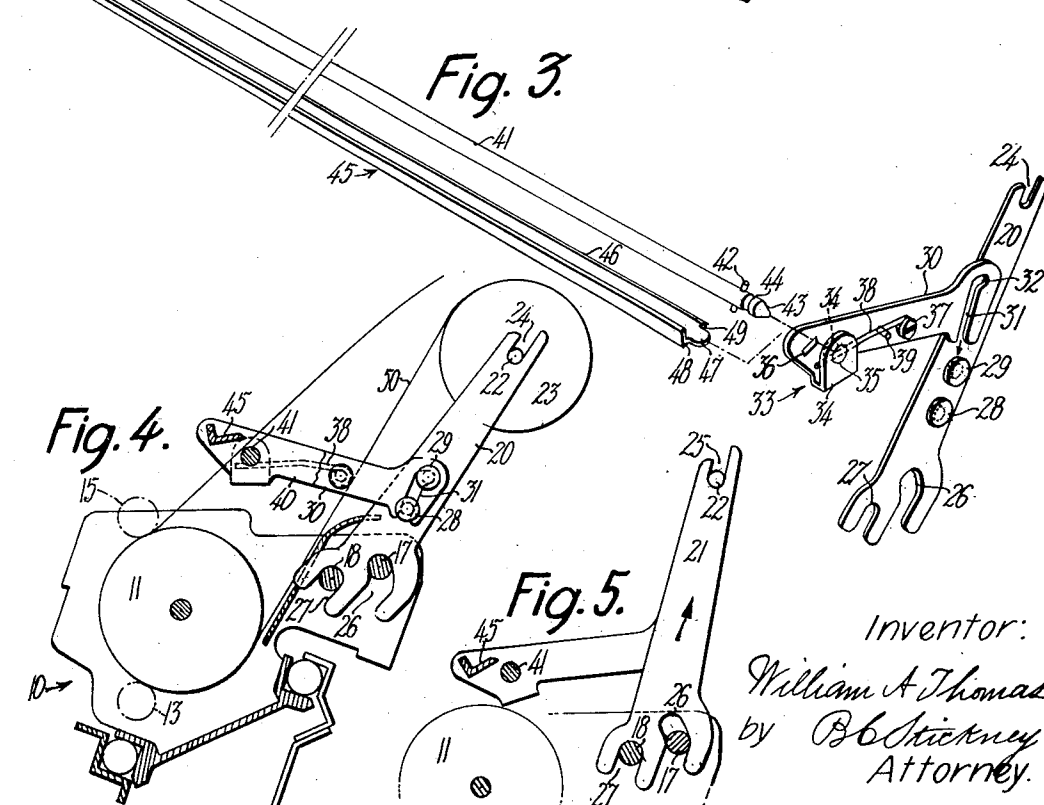
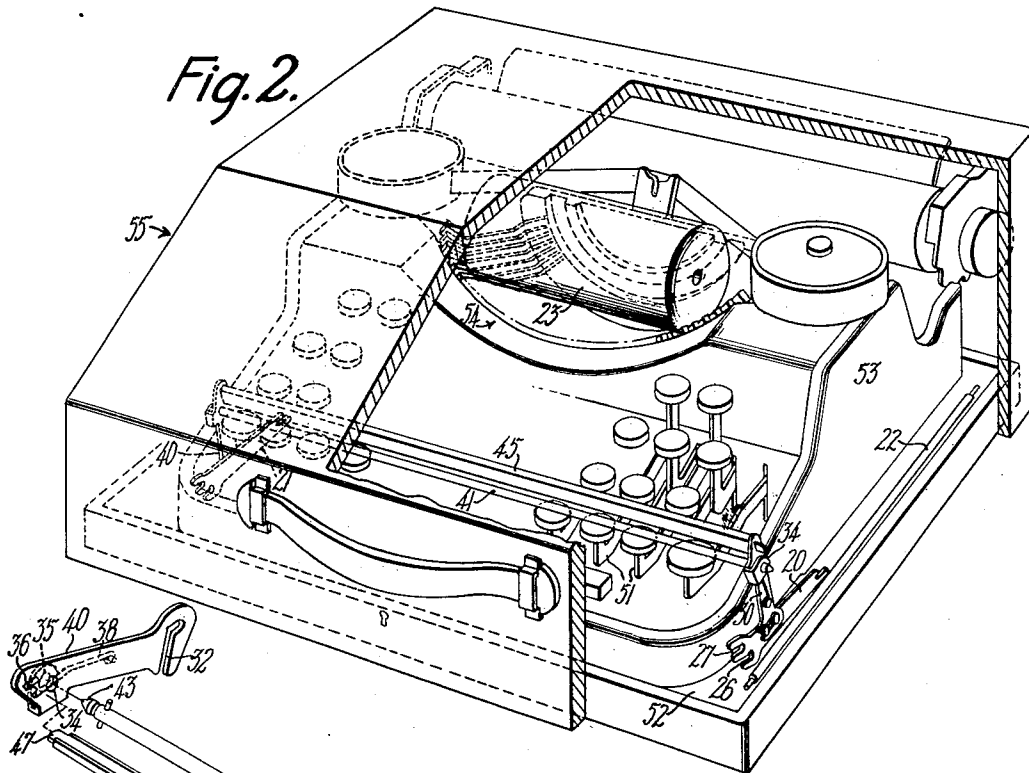
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UNITED STATES PATENT OFFICE

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TYPEWRITING MACHINE

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10 Claims. (Cl. 197—133)

This invention relates to a portable attachment for a portable typewriter, and is illustrated in connection with the standard four-row Underwood portable machine.

5 The main object of the invention is to make it practicable to typewrite from a paper roll upon a portable machine, as now constructed, without sacrificing the portability and compactness of the machine, or the size and form of the carrying case. When the machine is to be carried about, 10 the paper-roll is detached from a supporting frame and deposited in the open space over the type-bar basket. The roll does not protrude far enough above the machine to preclude closing 15 the cover down thereon. The supporting frame is in the form of a unit made up of a number of parts, some of which for transportation may be packed in the machine over the keyboard, and others may extend alongside of the typewriter upon the typewriter baseboard.

When it is desired to typewrite, the cover is removed from the machine, and the framing is readily attached to the typewriter-carriage, and the paper-roll is readily placed in position upon 25 the framing, the latter extending upwardly and rearwardly from the typewriter-carriage, and being so attached that it may be readily lifted off when it is desired to pack the machine again for transportation. The framing includes a pair of 30 standards that are caught over rods that are usually provided upon the standard carriage. Said standards carry the paper-roll between them; and provision is also made for attaching to said standards a transverse frame having a 35 tear-off knife for the paper-web.

Another object of the invention is to so construct the web-support that when disassembled the parts can be put in a very small flat space, like an envelope, and readily shipped from place 40 to place.

Other features and advantages will hereinafter appear.

In the accompanying drawings,

45 Figure 1 shows a diagrammatic form of Underwood portable typewriter-carriage, in perspective, with the portable roll-support attached.

Figure 2 shows a perspective view of an Underwood portable typewriter in its case, partly broken away, showing the roll-holder and roll deposited 50 therein for transportation.

Figure 3 shows the roll-holder, in perspective, with the parts separated.

55 Figure 4 is a side view of the roll-holder in place for operation with a typewriter-carriage.

Figure 5 shows how the roll-holder can be removed as a unit from the carriage-rods.

A carriage 10 has the usual platen 11 and knob 12, and the usual feed-rolls 13, 14, 15 and 16. In the rear portion of the carriage are the usual 60 rods 17 and 18. A lever 19 is mounted on the rod 18 to release the feed-rolls under the platen.

On these two rods 17 and 18 are loosely mounted standards or risers 20 and 21 at opposite ends of the machine. A spindle 22 which supports 65 a roll or web 23 of paper rests in notches 24 and 25 of the standards 20 and 21. In the lower end of the standards are slots 26 and 27 of just sufficient size to fit over the rods 17 and 18. The lower part of the slot 26 is made with its sides 70 parallel to the side of the slot 27, but the upper part of the slot 26 is in an arcuate form with the center of the circle the same as that which forms the top of the slot 27.

This is done for the purpose of holding the device on the machine more securely as it is necessary to move the upper part of the standard 20 forward before it can be lifted off the rods 17 75 and 18. Therefore it is locked against removal until the whole device is swung forward, which releases it so that it can be lifted off. 80

Two headed pins or screws 28 and 29 are secured in holes in the plate just below the center of the standard 20. They are spaced about one-half an inch from one another, and project so 85 that the space between their heads and the standard 20 is just sufficient to allow the free attachment and retention of a lateral arm or member 30 by a slot 31 which terminates at a pocket 90 or seat 32, offset from the slot.

The outer end of the lateral member 30 is formed with a U-shaped end 33 having two registering holes 34 and 35. In the main section of the member 30 is a rectangular opening 36, and 95 near the center of its length is a screw 37, about which is wound a spring 38 tensioned by a pin 39.

On the opposite side of the machine is another lateral arm or member 40 of the same shape and construction, only in the reverse order.

The members 30 and 40 may be held in position 100 laterally by a rod 41, formed the same at both ends; therefore a description of one end will suffice for both. The rod 41 has a pin 42 extending through it near the end, to act as a stop. The extreme end 43 is made cone-shaped. Between 105 the pin 42 and the end 43 is a circumferential groove 44.

In front of and slightly above the rod 41 is an L-shaped bar 45 which is beveled at one edge 46 to form a knife for cutting off the paper. This 110

bar 45 is formed with a lug or tongue 47 at each end, having shoulders 48 and 49 to act as stops to stiffen the structure when the tongues are assembled in the openings 36.

5 The parts are assembled as follows: The lateral arm or member 30 is secured to the standard 20 by dropping the slot 31 over the screws 28 and 29 until the offset seat 32 slides over the shank of screw 29 by gravity, which locks it into position
10 by the overhanging weight of the arm. The other lateral arm or member 40 is engaged with the standard 21 in the same way.

The end 43 of the rod 41 is now pushed through the hole 34 and the pointed end causes it to depress the spring 38 and enter the hole 35. As the rod is pushed, the spring rides over the cone-shaped end until the pin 42 strikes the arm 30, when the spring 38 snaps into the groove 44, thus frictionally holding the parts together. The lug
20 47 of the bar 45 is next inserted in the rectangular hole 36 and the same steps are gone through with the arm 40 at the opposite end of the rod 41.

After these parts have been assembled the standards 20 and 21 are dropped upon the rods 17 and 18, as shown in Figure 1, the weight of the attachment holding it upon the rods.

The spindle 22 is put through the roll 23 and the ends allowed to rest in the notches 24 and 25, and the weight of the roll supplements the weight of the fixture to hold the attachment upon the two rods.

A web 50 is passed from the roll around the platen 11 in the regular way, and, after passing the upper feed-rolls above the printing line, it is threaded between the cutter bar 45 and rod 41.
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These members are spaced so as to allow free passage of the paper. When the typing of a sheet has been completed the paper is drawn diagonally across the knife-edge 46 in the usual way.

40 By reference to Figure 2 it will be seen that the parts of the paper-support are so proportioned that by removing the spindle 22 and web-roll 23 the remainder can be lifted bodily off the rods 17 and 18 and placed over the first row of keys 51 in the portable machine, and the spindle 22 can rest on the ledge of the base 52 beside the frame 53 of the machine. The web-roll 23 can be so proportioned as to fit into the type-basket 54 and all can therefore be readily enclosed in the portable
50 case 55 of the machine, which makes a convenient arrangement for transportation, and prevents the parts from being mislaid or lost.

It will be noted that all the parts are made of thin metal, and are therefore light in weight, but owing to their construction and method of assembling are sufficiently strong and rigid to withstand the necessary shocks of operation.

Variations may be resorted to within the scope of the invention, and portions of the improvements may be used without others.
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Having thus described my invention, I claim:

1. In a roll-support for a typewriting machine, the combination of a pair of supports, a pair of headed pins projecting from the sides of each support, a pair of arms, each arm having a pair
65 of slots to engage said pins, aligned holes in the free end of each arm, a shouldered rod fitting into said holes for spacing said arms, and means for detachably securing each support on the machine.
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2. In a roll-support for typewriting machines, the combination of end supports, slots in said end supports for receiving a spindle for a web-roll, headed pins fastened to said end supports,
75 laterally-projecting arms, slots in said arms for

engaging said headed pins, U-shaped ends for said arms, holes through the sides of the U-shaped portion registering with one another, a rod fitting said holes, means for securing said rod in said U-shaped portion, an L-shaped bar
80 secured to said arms near their ends, and means for detachably securing the roll-support on a typewriter.

3. In a roll-support for a typewriting machine, the combination of discrete end supports, a spindle on said supports for supporting a roll of paper, headed pins on said supports, arms projecting forwardly from said end supports, a slot in the rear end of each arm to engage said pins, an offset seat formed in the end of each of said slots to lock said arms on said pins by their overhanging weight, a stiffening rod connecting the forward ends of said arms, the supports, arms and rod forming a unit, and means to detachably engage and lock said unit upon the machine by means
95 of said roll-supports.

4. In a roll-support for a typewriter, the combination of end supports, means for holding a web-roll spindle in said supports, studs projecting from one face of said supports, arms having slots with offset end seats at the rear ends thereof to engage said studs, U-shaped portions at the free ends of the arms, registering holes through both sides of the U, a spacing rod fitting said holes, a circumferential groove in each end of said rod, a spring on each arm for engaging a groove when the parts are pressed together, a knife secured to the outer ends of said arms and adjacent said rod to cut the web, and means for detachably securing said supports on the typewriter.
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5. A roll-supporting unit for a typewriter, having in combination a pair of discrete supports, a projecting arm secured to each support, a detachable spacing brace between said arms at their forward ends, front and rear parallel slots in each support, and an offset extension in each rear slot to provide for rocking the roll-support rearwardly and locking it in position, to secure the unit upon the typewriter.
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6. A collapsible supporting unit for a web-roll for a typewriter, having in combination a pair of discrete supports, a detachable arm on each support, and a detachable rod for bracing and spacing said arms, a pair of parallel slots being provided in the lower end of each support, one of each pair of slots having an offset section to seat and lock said supports on parts of the typewriter to prevent displacement of the unit.

7. A knock-down support for a web-roll for the carriage of a portable typewriter, including demountable discrete end supports, a spindle, notches in the top of said supports to receive said spindle, screws in the side of each support, an arm for each support having an open slot to engage said screws by the weight of said arm, a connecting rod, means for detachably securing said rod to the forward ends of said arms, said supports, arms and rod forming a rigid unit, and parallel open slots at the bottom of each end support to engage and lock upon a pair of parallel standard parts of the carriage.
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8. A readily detachable paper-roll appliance for the carriage of a portable typewriter, having rods, said appliance including a pair of risers having forks to engage the rods and a roll-axle removably supported upon the risers, said axle being at the rear of the rear rod to enable the weight of the roll to hold down the risers upon the rods and give the risers a tendency to rotate
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upon the rear rod and bind against the front rod, so as to render the paper-roll and mount self-supporting upon the carriage, said axle and risers being readily removable.

5 9. A unit for supporting a paper-roll in a portable typewriter, said unit having, in combination, a pair of discrete standards to carry the roll-spindle, and means connecting said standards, including arms extending forwardly from the
10 standards and also including a spacer rod rigidly connecting the arms together at their forward ends, each of said standards having slots fitting over supports provided upon the typewriter, one of said slots having an extension to permit rocking the standard and locking it, said unit being
15 detachable by unlocking and lifting said standards from the machine and the unit being adapted for hanging down over the keyboard of the machine with the standards in cumbent position
20 for transportation.

10. A unit for supporting a paper-roll in a portable typewriter, said unit having, in combination, a pair of discrete standards to carry the

roll-spindle, and means connecting said standards, including arms extending forwardly from the standards, and also including a spacer rod rigidly connecting the arms together at their forward ends, each of said standards having slots
80 fitting over supports provided upon the typewriter, one of said slots having an extension to permit rocking the standard and locking it, said unit being detachable by unlocking and lifting said standards from the machine and the unit
85 being adapted for hanging down over the keyboard of the machine with the standards in cumbent position for transportation, said spacer rod being detachably connected to the forward ends of said arms, and the rear ends of said arms
90 being detachably connected to said standards, whereby the parts when manufactured may be compactly packed in knocked-down condition for shipment, and may be readily assembled into the described unit for attaching to and locking upon
95 the machine.

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