

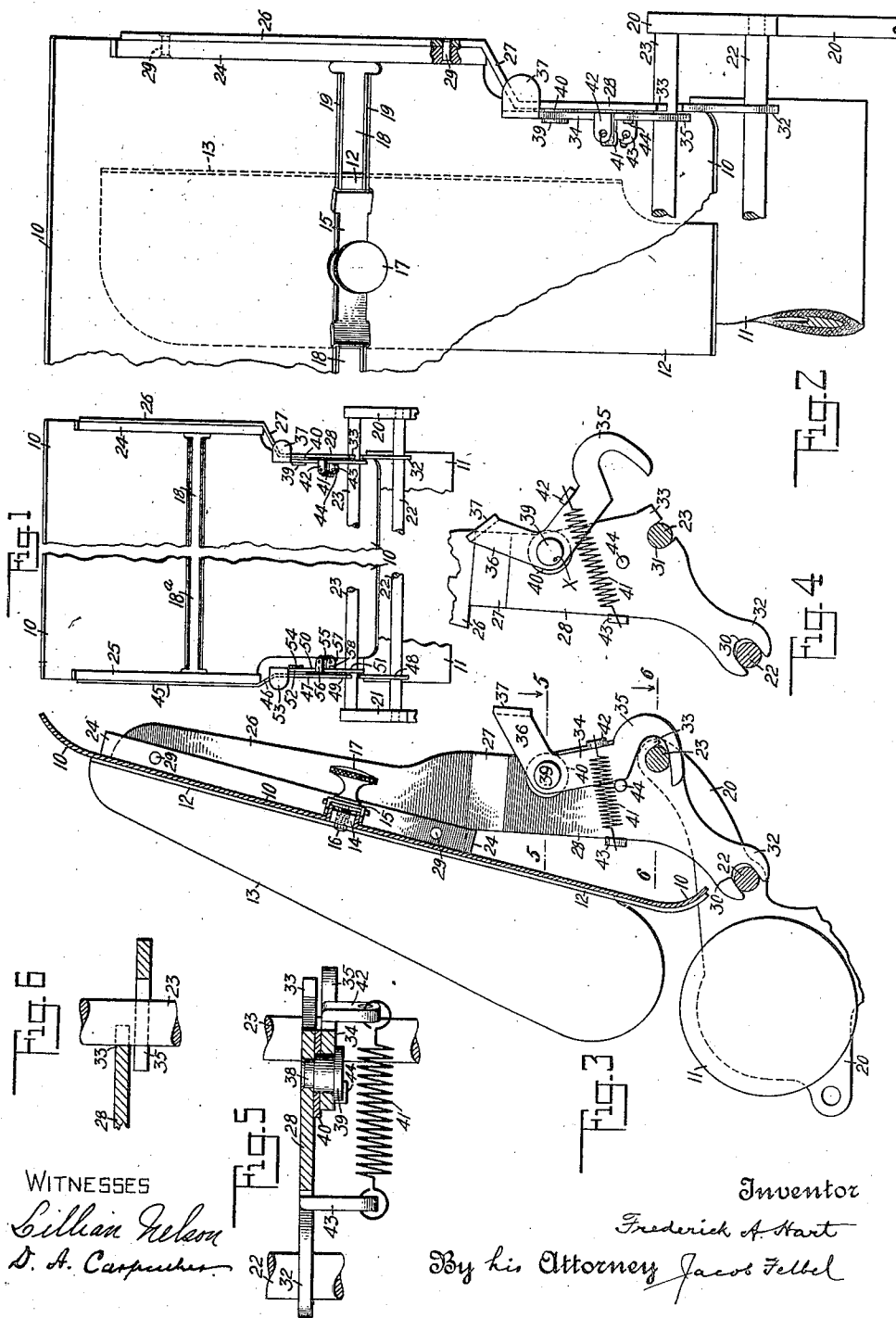
July 24, 1923.

1,462,697

F. A. HART

TYPEWRITING MACHINE

Filed Dec. 13, 1921



WITNESSES

Lillian Nelson
D. A. Carpenter

Inventor

Frederick A. Hart

By his Attorney Jacob F. Felbel

UNITED STATES PATENT OFFICE.

FREDERICK A. HART, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO REMINGTON TYPEWRITER COMPANY, OF ILION, NEW YORK, A CORPORATION OF NEW YORK.

TYPEWRITING MACHINE.

Application filed December 13, 1921. Serial No. 522,009.

To all whom it may concern:

Be it known that I, FREDERICK A. HART, citizen of the United States, and resident of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Typewriting Machines, of which the following is a specification.

This invention relates to improvements in typewriting machines, which comprise a paper table that is supported on a paper carriage on which is mounted a roller platen to which the paper is fed. The invention relates especially to improvements in the paper tables of such machines. The main object of the invention is to provide such machines with a paper table that is instantly detachable from and attachable to the paper carriage and that is suitable for use in accounting machines in which a large paper table, that extends to the height of six inches more or less above the platen, is usually required.

The invention consists of the paper table that is described and claimed herein.

On the accompanying sheets of drawings on which like reference numerals designate like parts in different views;

Figure 1 is a fragmental rear elevation of a paper table embodying the invention and of the platen and platen frame of a typewriting machine, the table having right and left standards supported by the platen frame;

Figure 2, an enlarged rear elevation of portions of the paper table, platen and platen frame, the back of the left standard being shown in this view;

Figure 3, a section on the plane cutting the platen axis at right angles, of the paper table, and two rods one of which is included in the platen frame and to which the standards are attached, a right side elevation of the left standard and of a locking device mounted thereon being shown in this view;

Figure 4, a right side elevation of this locking device and fragments of the left standard, and a cross section of the two rods, the locking device being shown in a position to which it may be swung by hand;

Figure 5, an enlarged horizontal cross section of the left standard, and the locking device mounted on it, and a top view

of fragments of the two rods, the sectional plane being indicated by line 5—5, Fig. 3; and

Figure 6, an enlarged fragmental section, on the plane 6—6, Fig. 3, of the standard and locking device, and top view of a fragment of the rear rod.

The invention is shown as it appears when it is embodied in a Remington accounting machine. It was made especially for use in such a machine, but can readily be applied to others.

This machine commonly has a paper table comprising the plate 10 with a pair of horizontally adjustable paper guides mounted on it, the lower edge of the plate being a little below and behind the top of the platen 11 and the plate extending upward and backward to a height of about six inches above the platen, as represented in Figs. 1, 2 and 3. One of the paper guides is on the left half and the other on the right half of the plate. Only the left guide is illustrated herein. This guide includes the back or base 12, wing 13, block 14, spring 15, and screw 16 having the head 17. The base and wing, 12 and 13, are parts of one piece of sheet metal bent so that these parts form a right dihedral angle. Block 14 is fast on base 12 of the guide, closely but loosely fits in slot 18 in plate 10, and is drilled and threaded to enable screw 16 to engage with it. At the sides of slot 18 and at the back of plate 10 are upturned flanges 19 between which block 14 extends, and spring 15 fits on these flanges and normally is held by screw 16, which passes through it and into the block, under stress so that it draws base 12 of the guide against the front face of the plate 10. When screw 16 is loosened the guide may be moved to the right or left, block 14 sliding in slot 18. The right guide is symmetrical to the guide shown and above described, and the block attached to its base fits and slides in slot 18^a (Fig. 1) in the right half of plate 10.

The plate 10 with the guides mounted on it, has been supported in Remington accounting machines on standards affixed to the paper carriage, but has not been detachable from or replaceable on the paper carriage or standards without the aid of a tool. It is desirable to detach the paper table whenever a machine is to be enclosed in a drop-leaf cabinet, and whenever it is to be put

into a case for shipment, and at other times.

Remington accounting machines also include the paper carriage on which the platen 11 is mounted and of which the end plates 20 and 21 and rod 23 are parts, this rod and rod 22, which is the feed roll release rock shaft, extending throughout the length of the carriage and rod 23 being fast in the end plates.

Paper tables embodying the invention may be provided with standards differing more or less from those which are shown and particularly described herein, and so as to fit them for use in both Remington and other machines.

These standards are affixed to the ribs or cleats 24 and 25, fastened to the back of plate 10 close to its ends. Each standard consists of a piece of stiff sheet metal and is formed to fit on and engage with the frame of the paper carriage. The left standard is composed of the sections 26, 27 and 28. It is shown affixed to cleat 24 by means of rivets 29, section 26 of the standard being on the outer side of the cleat and the rivets passing through that section and the cleat. Section 28 is off-set from section 26 to provide room at the left of section 28 and below section 27 for mechanism which Remington machines usually contain but which is not shown herein. The recesses or open slots 30 and 31, formed in the toe-like and heel-like portions 32 and 33 respectively of section 28, are of such size and shape and so arranged as to enable the standard to fit on, and against opposite sides of, each of the rods 22 and 23 (Figs. 4 and 2). It will be seen that these slots extend into the standard in directions which are substantially at right angles to each other, although the direction of either might be changed so that it would be at a different angle to the other. When the standard is being applied to the paper carriage, first toe 32 is made to engage rod 22 in recess 30, and then the standard is swung backward, resting and turning on rod 22, until it engages rod 23 in recess 31. As it settles on rod 23 the back of slot 31 acts on this rod so that the inner end of slot 30 is drawn slightly away from rod 22, causing nearly the whole weight to rest on rod 23 and allowing rock shaft 22 to be easily turned while acting to support the standard against swinging transversely of rod 22.

The device 34, which is a locking device having the hook 35, and arm 36 bent to form the finger piece 37, is pivotally attached by stud 38 to the inner or right face of section 28 of the standard, the finger piece 37 extending behind the standard. The head 39 of the stud overlaps the locking device and the washer 40, through which the stud passes, separates that device from the standard. The spring 41 attached to lug 42 on the locking device and to lug 43 on the

standard tends to swing the hook 35 forward. If the standard is detached from the paper carriage this spring will hold the locking device in contact with the stop pin 44 fixed in the standard. This locking device is formed and arranged so that when the standard rests on rod 23 and engages with it and with rod 22, hook 35 of the locking device will engage with the rod 23, passing under and making contact with the lower side of the rod as indicated in Fig. 3, and will be held engaged with the rod by spring 41. It will be seen that when the locking device is so held the standard is locked not only to rod 23 but also to rod 22. That edge of the hook which makes contact with the rod is preferably curved on an axis which is parallel to and slightly in front of the axis of the pin 38 which latter axis is the pivotal axis of the locking device, so that the hook draws or tends to draw the heel of the standard down on rod 23 and there hold it tight, the rod being clamped between the inner end of slot 31 and the bill of the hook.

The right standard is composed of the sections 45, 46 and 47 (Fig. 1). Section 45 is in size and shape like section 26 of the left standard and is affixed to cleat 25 on the outer face thereof. Section 46 is smaller than section 27 of the left standard, although both standards are of the same length. The lower section of the right standard does not need to be much off-set from the upper to provide room for other mechanism. Section 47, of the right standard, is in size and shape like section 28 of the left standard, except that the lug and stop pin on section 47, corresponding to lug 43 and pin 44 on section 28, project to the left instead of to the right. Section 47 includes toe-like and heel-like portions 48 and 49, which are respectively like portions 42 and 43 of the left standard and in which are recesses that are like recesses 30 and 31 and that enable the right standard to fit on and engage with the rods 22 and 23 as the left standard does.

The device 50 is a locking device having a hook 51, and arm 52 bent to form the finger piece 53, and is pivotally attached by stud 54 to the inner or left face of section 47. This device is also connected to section 47 by the spring 55 which is attached to lug 56 on the locking device and to lug 57 on the section 47 and which tends to swing hook 51 forward. The device makes contact with the stop pin 58 (Fig. 1), like pin 54 on the left standard, when the paper table is detached from the paper carriage. Hook 51 is like hook 35 of locking device 34, and arm 52 and finger piece 53 are like arm and finger piece 36 and 37 of device 34, except that finger piece 53 extends to the right from the bend in the arm 52 whereas

finger piece 37 extends to the left from the bend in arm 36. Device 50 is formed and arranged so that it acts as does device 34, that is to say, when the standards rest on rod 23 and engage with it and with rod 22, hook 51 will engage with the rod 23, passing under and making contact with the lower side of the rod, and will be held engaged with the rod by spring 55.

To detach the paper table from the paper carriage, finger pieces 37 and 46 of the locking device are pulled forward until the hooks 35 and 51 are disengaged from rod 23, then the table is turned on rod 22 until the heels of the standards are free from rod 23, and then the table is lifted from rod 22. The table is attached to the paper carriage by standing it on rod 22 so that toes 32 and 48 engage the rod as described, then pulling forward the finger pieces of the locking devices and swinging the table backward, the standards turning on that rod, until heels 33 and 49 of the standards engage with rod 23, and then releasing the locking devices, which the springs 41 and 55 instantly thereafter draw into engagement with the rod 23 and so hold that the table is locked to the rods.

Various changes may be made without departing from my invention.

What I claim as new and desire to secure by Letters Patent, is:—

1. In a typewriting machine in which a paper carriage is included, a paper table having standards with locking devices mounted on and movable with relation to them, the standards being formed to fit on and engage with the frame of the paper carriage, and the locking devices being formed and arranged to engage with said frame and being movable by hand from engagement therewith.

2. In a typewriting machine in which a paper carriage is included, a paper table having standards with locking devices mounted thereon, and springs connecting the locking devices to the standards respectively, the standards being formed to fit on and engage with the frame of the paper carriage, and the locking devices being formed and arranged to engage with said frame and being movable into engagement with it by the springs and movable by hand from engagement with it.

3. In a typewriting machine in which is included a paper carriage that comprises two rods extending from end to end thereof, a paper table having standards with locking devices mounted thereon, the standards being formed to fit on said rods, and the locking devices being formed and arranged to engage with one of the rods and being movable by hand from engagement therewith.

4. In a typewriting machine in which is included a paper carriage that comprises

two rods extending from end to end thereof, a paper table having standards with hook-like locking devices pivoted thereon, the standards being formed to fit on said rods and close to opposite sides of each rod and to move angularly on one rod to enable them to engage with the other rod, and the locking devices being arranged to hook the standards to the last mentioned rod and being movable by hand to enable the standards to be swung from that rod.

5. In a typewriting machine in which is included a paper carriage that comprises two rods extending from end to end thereof, a paper table having standards with hook-like locking devices pivoted thereon, and springs connecting the locking devices to the standards respectively, the standards being formed to fit on said rods and close to opposite sides of each and to move angularly on one rod to enable them to engage with the other rod, and the locking devices being arranged to hook the standards to the last mentioned rod and being movable into engagement with the rod by the springs and movable by hand from engagement with it.

6. In a typewriting machine in which a paper carriage and roller platen mounted thereon are included, a paper table having standards formed to fit on and engage with the frame of the paper carriage behind and at different distances from the platen, and combined with locking devices that are movable by hand to release the standards.

7. In a typewriting machine in which is included a paper carriage on which is mounted a roller platen and which comprises two rods which are behind the platen and one of which is behind the other, a paper table having standards formed to fit on said rods and combined with locking devices formed and arranged to lock the standards to one of said rods and movable by hand to release the standards.

8. In a typewriting machine, a paper table that fits on the frame of the paper carriage and is provided with rigid frame-engaging parts and with separate inelastic locking means that positively engages the frame and is movable from engagement with it by hand.

9. In a typewriting machine, a paper table including rigid parts that engage the paper carriage at two different points on each side, said paper table being provided with separate inelastic locking means that positively engages the carriage frame and is movable from engagement with it by hand.

10. In a typewriting machine, a paper table having recesses formed at angles to each other and adapted to engage two different parts of the paper carriage, said paper table being provided also with a locking hook or latch to engage one of said parts of the paper table.

11. In a typewriting machine, a detach-

able paper table having at each side two recesses formed at angles to each other
 cesses arranged at angles to each other and one arranged above and back of the
 adapted to fit over two supporting parts at other and having also two pivoted hooks
 each side of the paper carriage, said paper each having a recessed portion formed at an
 5 table being provided also with two spring angle to the upper recess portion of the 20
 pressed hooks or latches each adapted to engage one of said supporting parts at each
 side of the paper table and each of said hooks or latches being provided with a fin-
 10 gery piece for disengaging the same. Signed at the borough of Manhattan, city
 of New York, in the county of New York
 and State of New York; this 12th day of De-
 cember, A. D. 1921.

12. A paper table adapted to engage at
 each side two different supporting portions
 on the paper carriage one above and back
 of the other of a typewriting or like ma-
 15 chine, said paper table having at each side

FREDERICK A. HART.

Witnesses:

LILLIAN NELSON,

CHARLES E. SMITH.