(No Model.)

A. M. ROTHERT.

UPPER CASE TREADLE ATTACHMENT FOR TYPE WRITING MACHINES.

No. 455,116. Patented June 30, 1891.

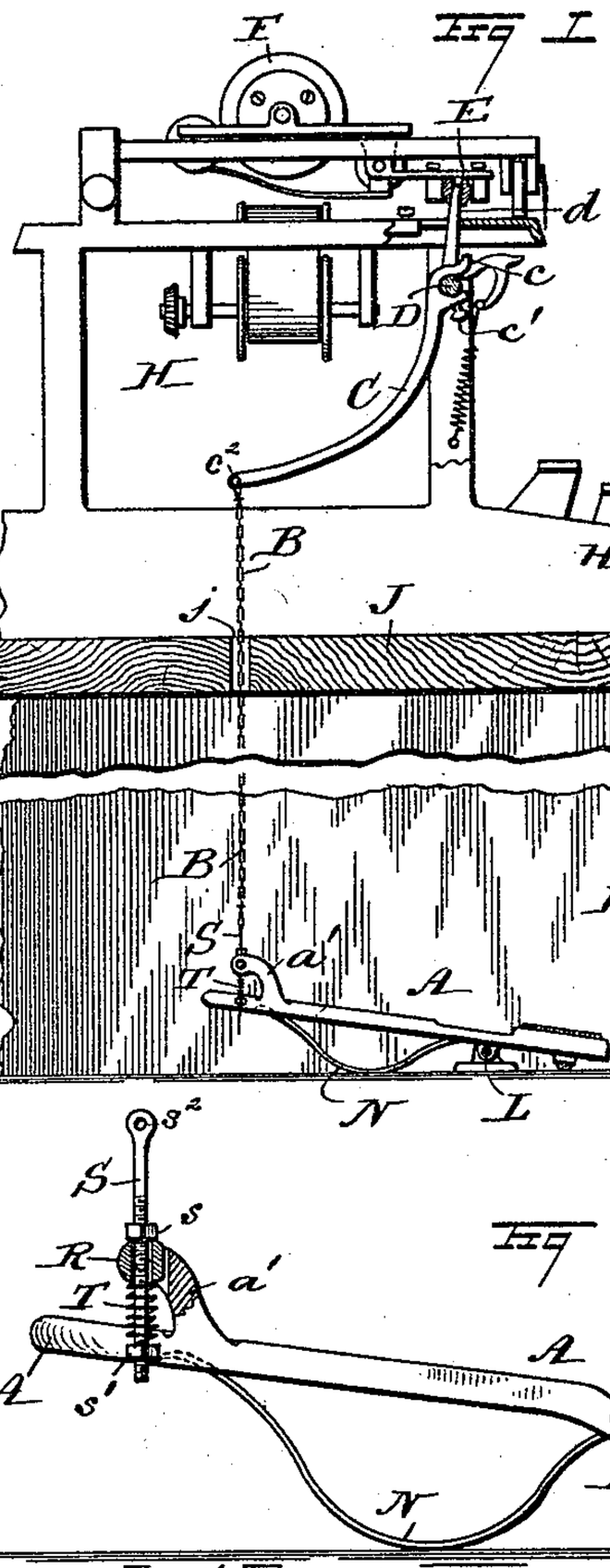


Fig 1

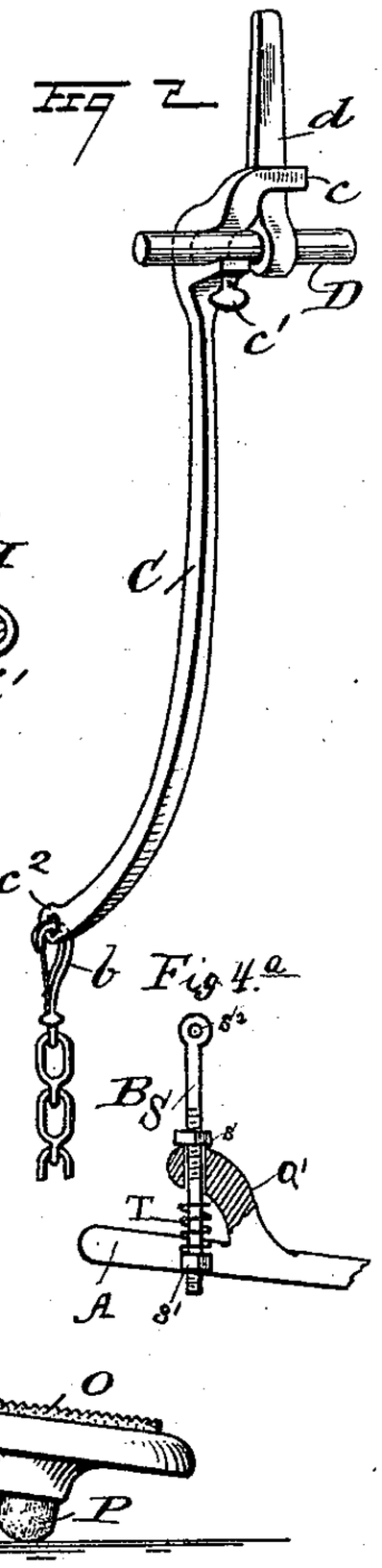


Fig 2

Fig 3

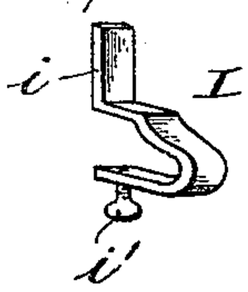


Fig 4a

Fig 4

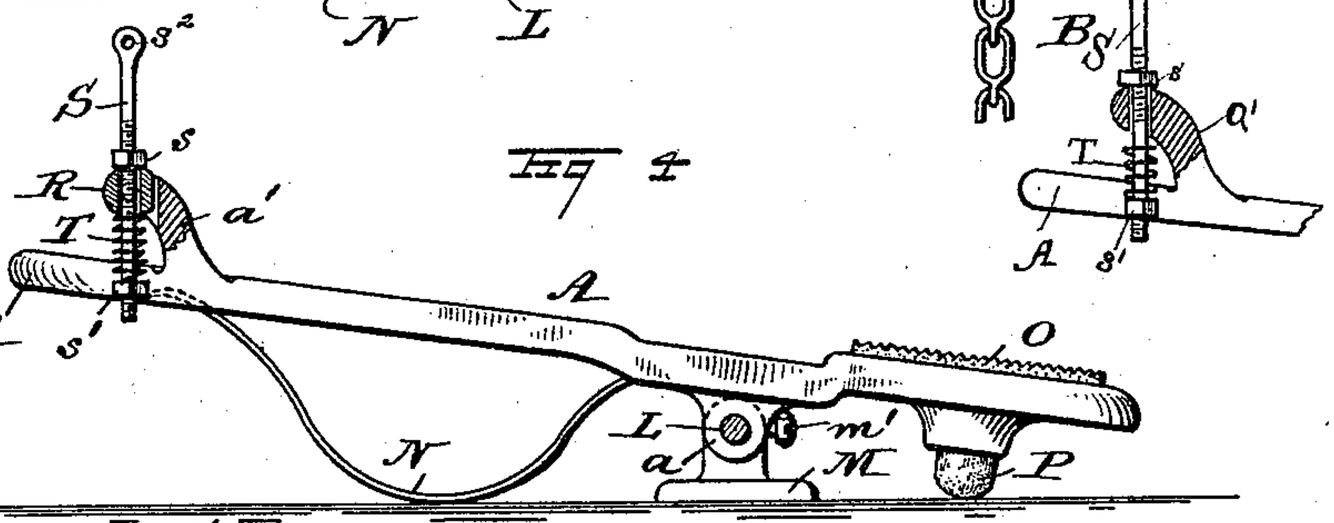


Fig 6

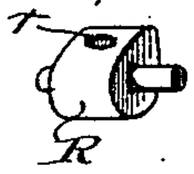


Fig 5

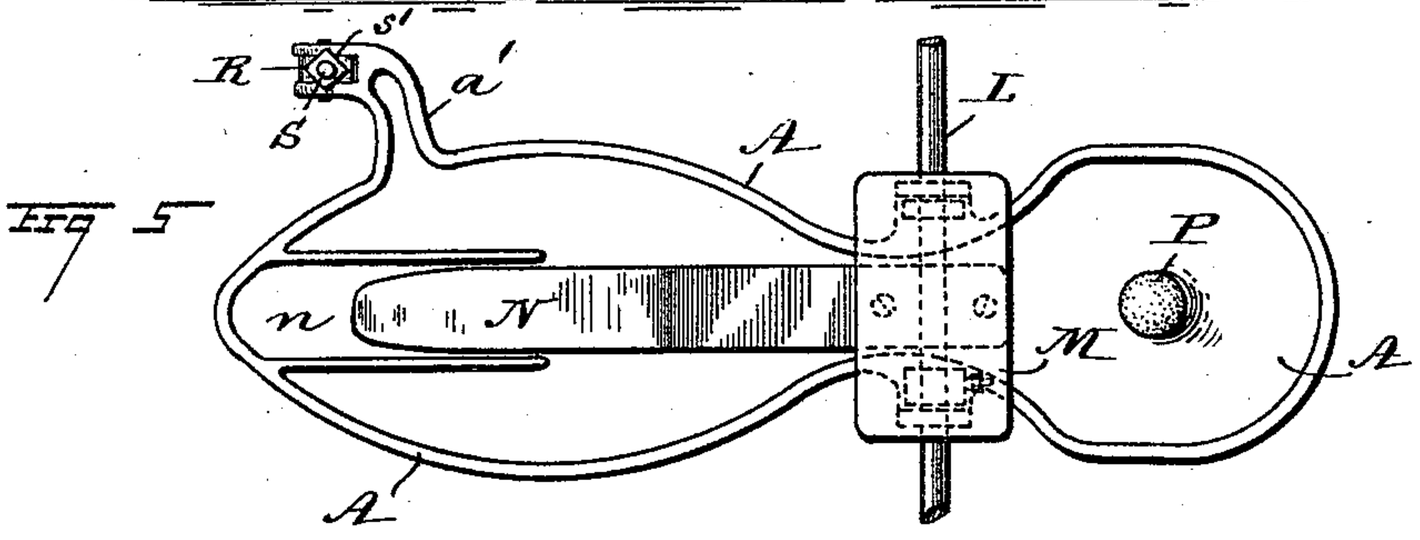
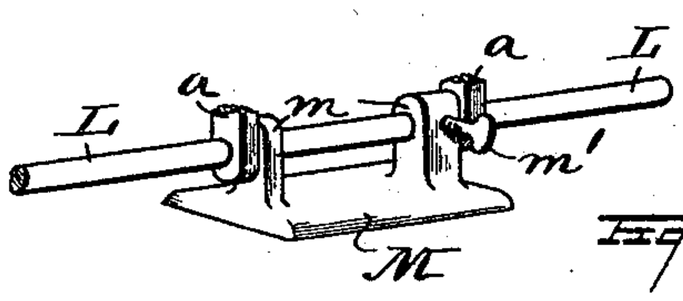


Fig 7



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ANNA M. ROTHERT, OF BROOKLYN, NEW YORK.

UPPER-CASE TREADLE ATTACHMENT FOR TYPE-WRITING MACHINES.

SPECIFICATION forming part of Letters Patent No. 455,116, dated June 30, 1891.

Application filed September 20, 1890. Serial No. 365,636. (No model.)

To all whom it may concern:

Be it known that I, ANNA M. ROTHERT, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Upper-Case Treadle Attachment for Type-Writing Machines, of which the following is a full, clear, and exact description.

My invention relates to a platen-shifting treadle-operating attachment for type-writing machines, and has for its object to provide simple, inexpensive, and efficient devices of this character.

The invention will first be described, and then will be particularly defined in claims hereinafter set forth.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical sectional side elevation of a type-writing machine with its table or cabinet partly broken away, and shows the application of my invention. Fig. 2 is a perspective view of the lever and adjacent parts of the platen-shifting shaft to which it is attached. Fig. 3 is a perspective view of one of the front clamp guides or stops for the type-writer. Fig. 4 is an enlarged side view of the treadle portion of the attachment partly broken away and in section. Fig. 4ª is a detail sectional side view showing how the yielding pull-rod of the treadle may be fitted directly in the treadle-arm and the trunnion be dispensed with. Fig. 5 is a bottom view of the treadle. Fig. 6 is a perspective view of the trunnion-block in which the yielding pull-rod of the treadle is fitted, and Fig. 7 is a perspective view of the fulcrum-rest for the treadle-shaft and parts of the shaft and treadle.

Generally speaking, my improvement consists of a treadle A, a chain or cord B, connected thereto, and a lever C, to which said chain is attached, and which is connected to a shaft D, which has a fixed arm *d* connected with the usual transverse rod E, which is connected to the carriage of the type-writer and is adapted to shift the roller-platen F backward to cause imprint of upper-case or capital letters or characters in a manner well known to users of machines of this kind.

The type-writer H shown is of the "Remington" class, and with it I use clamp guides or stops I, which, however, may be used with other styles of writing-machines to steady it or them on the top J of an ordinary table or cabinet K, which in the drawings is largely cut away horizontally to promote convenient illustration of the invention, which I will more particularly describe as follows: The treadle A is preferably journaled by its bottom lugs *a a* to a shaft L, which has support in suitable bearings at the sides of the cabinet K. Between the treadle-lugs *a a* are fitted upon the shaft L the two lugs *m m* of a fulcrum-plate M, which is preferably provided to rest on the floor to relieve the shaft of strains, and to which the shaft is held by a set-screw *m'*, passed into one of the lugs *m*. This screw prevents slip of the treadle along the shaft. To the under side of the treadle and at its shank or rear portion is fixed one end of a bowed plate-spring N, the forward free end of which has play in a groove or channel *n*, provided for it in the treadle-toe portion. This groove *n* prevents lateral displacement of the free end of the spring as the treadle is depressed and flattens the spring lengthwise more or less under it. The rear heel portion of the treadle is preferably provided at its upper face with a rubber wear or rest plate O, which allows noiseless pressure of a boot or shoe heel upon it, and at its lower face the treadle-heel has a suitable buffer P, preferably made of rubber, and which assures a noiseless back or return movement of the treadle or prevents noisy contact of its heel with the floor. At its forward part, and preferably at the left side of it, the treadle is provided with an arm *a'*, in the forked extremity of which is journaled a trunnion-block R, which has a hole *r*, in which is fitted loosely a screw-rod S, onto which are placed two nuts *s s'*, one above and the other below the trunnion-block. Between the block and the lower nut *s'* is placed on the rod S a spring T, which normally expands and draws the upper nut *s* to the block. The upper end of the screw-rod S preferably has an eye s^2, into which is caught a snap-hook on the lower end of the chain or cord B, and like the snap-hook *b*, which connects the upper end of the chain to

an eye c^2, on the lower or free end of the attachment-lever C. This connection of the chain by end snap-hooks allows its convenient detachment whenever required. The lever C is forked at its upper end, which straddles the rod D of the type-writer, and the upper link of the fork is bent or projected over at right angles to form an arm *c*, which extends in front of the arm *d* of the shaft D, while the lower lip of the fork has a set-screw *c'*, which is turned in against the shaft. The overlocking of the lever-arm *c* onto the shaft-arm *d* not only makes a reliable guide to assure proper positioning of the lever C relatively to the shaft D and its fixed arm *d*, but it also guards against slipping around of the lever on the shaft when the device is in use and promotes the completeness and durability of the entire attachment. The lever C is bent downward and rearward to clear the ribbon-spool of the type-writer and to bring its free end to proper position for attachment of the pull chain or cord B, by which it is operated from the treadle. The chain B passes downward from the lever C through a hole *j* made in the table or cabinet top J, and this is the same hole through which is usually passed the left-hand screw or clamp-hook commonly used to fasten that side of the type-writer to the table, it being understood that I prefer to remove these ordinary clamp-hooks, (not shown in the drawings,) and then move the machine forward and simply drop or place the front bar *h* of its bed outside of the upright inner lug portions *i* of the two guides I, which will be clamped by screws *i'* or otherwise to the front edge of the table. These clamp-guide lugs *i* will stand one at each front corner of the frame-bed, and will therefore prevent sidewise as well as rearward motion of the machine on the table, and will also prevent downfall of the type-writer when the cabinet is folded up in the usual manner to carry the machine down below its top. The clamp-guides I also leave the type-writer entirely free, so it may be lifted from the table for examination, cleaning, or repair at any time. I consider these clamp-guides a legitimate part of my invention, as they greatly facilitate the proper relative adjustment of the main treadle, pull-chain, and lever A B C to all machines of this class now in use without requiring cutting or boring of the cabinet-table.

The operation of the invention is very simple and effective. When the operator requires an upper-case or capital letter or letters, the treadle A will be depressed by the foot and its trunnion-block R will by pressure on the spring T of the rod S pull the rod and the chain B downward, and thereby lower the long arm of the lever C and rock the shaft D and cause its arm *d* to throw the shaft E rearward, and thereby shift the platen to cause printing of upper-case characters as the type-keys are depressed. The spring T has sufficient tension or resistance to cause the treadle or its block R to shift the platen through the above-named mechanism by a comparatively slight and easily-made movement of the treadle; but if too great pressure be brought on the treadle after the platen is shifted to the usual stops the spring T will yield and take the extra strain and entirely relieve the platen-shifting mechanism of the type-writer, which thus will be unharmed should excessive pressure be inadvertently given the treadle. The trunnion-block R is not essential to the successful operation of the invention, as the spring-supporting rod S may be fitted directly in the treadle-arm *a* or in the body of the treadle, as shown in Fig. 4ª of the drawings, and whether the rod be fitted in the block or treadle the nuts *s s'* may be adjusted to regulate or control the tension of the spring T to give the best results with heavy or light footed operators.

Certain features of my invention relating to the treadle itself and the yielding pull or draft rod and chain or cord connections thereto are not limited in use to the shifting of type-writer platens, but may be adopted for any use requiring a treadle and a yielding connection therefrom to a movable part or device, as will readily be understood.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In an upper-case treadle attachment to type-writers, the combination, with a lever connection to the type-writer platen, and a treadle, of a rod loose on the treadle, a spring between a shoulder or stop on the rod and the treadle, and a chain or cord connecting the rod and platen-shifting lever, substantially as described.

2. In an upper-case treadle attachment to type-writers, the combination, with a lever connection to the type-writer platen, and a treadle provided with a trunnion-block, of a rod loose in said block, a spring between a shoulder or stop on the rod and the block, and a chain or cord connecting the rod and platen-shifting lever, substantially as described.

3. In an upper-case treadle attachment to type-writers, the combination, with the platen-shifting rod E and a rock-shaft D, having one or more arms *d* engaging the rod, of a lever C, having a forked end engaging the rock-shaft and provided with an arm *c*, overlying the rock-shaft arm, and a pull connection to said lever, substantially as described.

4. In an upper-case treadle attachment to type-writers, the combination, with the platen-shifting rod E and a rock-shaft D, having arms *d*, engaging the rod, of a lever C, having a forked end engaging the rock-shaft and provided with an arm *c*, overlying the rock-shaft arm, a treadle, and a pull chain or cord connecting the treadle and lever C, substantially as described.

5. In a platen-shifting lever C, made with a forked or slotted extremity, and an arm *c*, ex-

tending laterally from one limb of the fork and adapted to overlie an arm on the platen rock-shaft while said shaft rests in the lever-fork, substantially as described.

6. In an upper-case treadle attachment to type-writers, the combination, with a platen-shifting lever and a pull chain or cord pendent therefrom, of a treadle, a screw-rod S, held thereto and connected to the pull-chain, and a spring T, and nuts *s s'* on the rod, substantially as described.

7. In an upper-case treadle attachment to type-writers, the combination, with a platen-shifting lever and a pull chain or cord pendent therefrom, of a treadle, a trunnion-block R thereon, a screw-rod S, loose in said block and connected to the pull-chain, and a spring T, and nuts *s s'* on the rod S, substantially as described.

8. In an upper-case treadle attachment to type-writers, the combination, with the treadle fulcrum-rod journaled in the type-writer cabinet or stand, of an auxiliary re-enforcing fulcrum-block on said rod at the treadle, and a heel-buffer and front lifting-spring on the treadle, substantially as described.

9. The combination, with the frame or bed of the type-writer, of clamp-guides fastened to the table-support of the machine and having upwardly-extending lugs standing behind the front of the frame or bed, substantially as described.

ANNA M. ROTHERT.

Witnesses:
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