

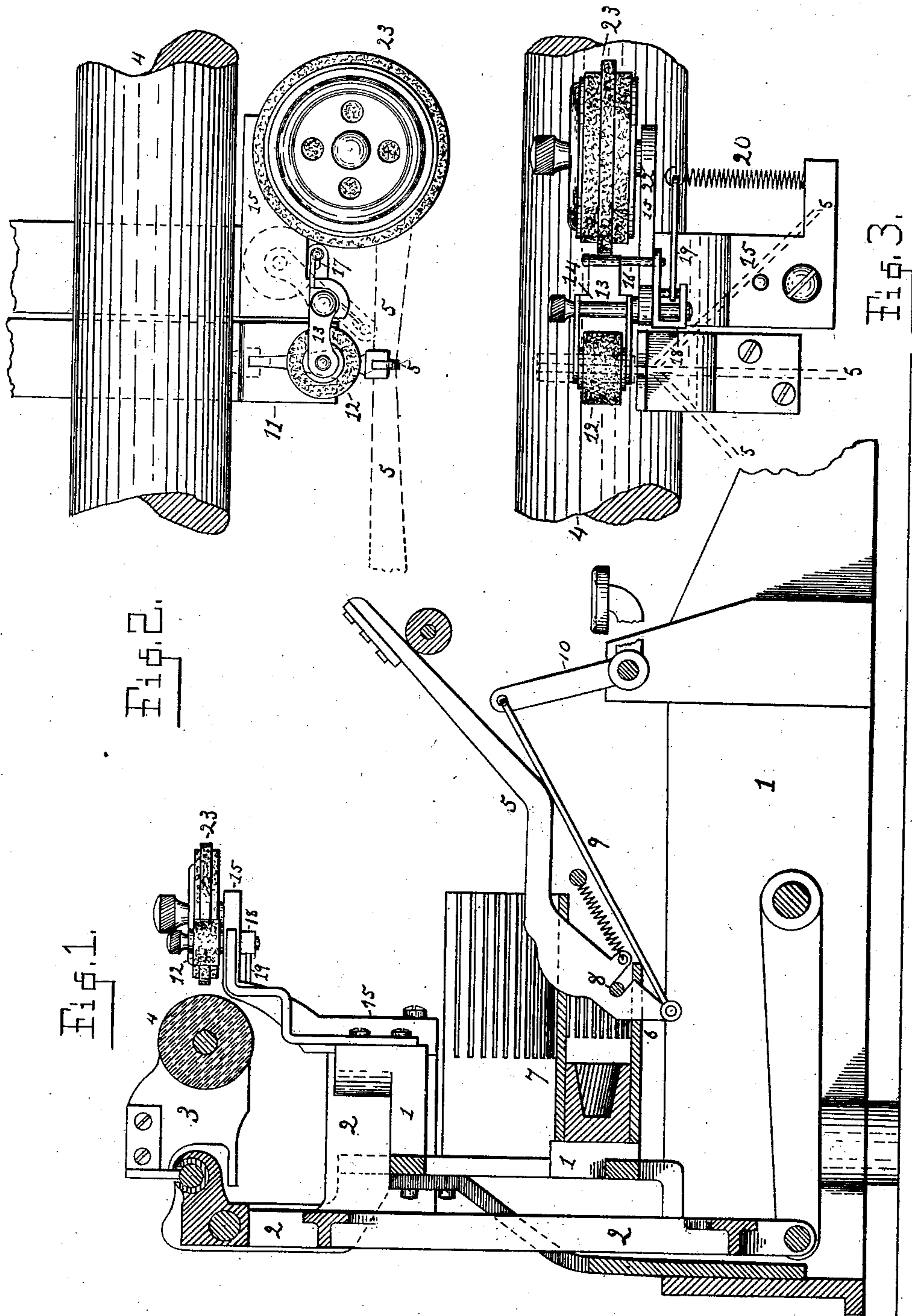
**No. 697,605.**

**Patented Apr. 15, 1902.**

**L. S. BURRIDGE.**  
**TYPE WRITING MACHINE.**

(Application filed Nov. 27, 1901.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 697,605, dated April 15, 1902.

Application filed November 27, 1901. Serial No. 83,904. (No model.)

*To all whom it may concern:*

Be it known that I, LEE S. BURRIDGE, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to type-writing machines; and the object is to provide new mechanism for inking the type.

The invention is applied to a machine heretofore invented by me and as exemplified in the patents dated December 18, 1900, No. 664,347, and dated February 12, 1901, No. 667,929, and only so much of the structure is shown as seems necessary for a full understanding of the improvements.

In the drawings, Figure 1 is a sectional side elevation of the machine, showing only one type-lever and leaving out portions of the mechanism for clearness. Fig. 2 is an enlarged plan view of the inking mechanism, and Fig. 3 is a front elevation of the same.

1 is the frame of the machine, and 2 the shifting frame, which supports the paper-carriage 3 and platen 4.

The type-levers 5 (only one being shown in Fig. 1) are guided in slots in the two combs 6 and 7, which slots are cut radially from the printing-point, and the wire 8 serves as a fulcrum-wire. The type-levers are operated by means of the connecting-wire 9 and bell key-lever 10, and they are guided at the printing-point by means of the flaring guide 11. Immediately above the guide 11 is an inking-roller 12, composed of felt or other porous substance, the center of which is normally central with the flaring guide. This inking-roller 12 rotates on a wire which is secured at the top and bottom to a bracket 13, and bracket 13 rotates on a pintle 14, which is secured to a forwardly-projecting table of a standard 15, which in turn is screwed to the shifting frame 2, which supports the carriage. The bracket 13 extends beyond the pintle 14 (on the opposite side from the end-supporting roller 12) and has a downwardly-projecting pin 16 at its end, which enters an opening 17 in a small spring-pressed bracket 18, which turns on the extension of pintle 14 below the standard 15. The link 19 connects the standing coiled spring 20 and bracket 18, so as to return the bracket to its normal position whenever it has been rotated.

The action of standing coiled spring 20 is not to stretch in its length, but to flex sideways, and when bracket 18 is rotated said spring will flex toward the left in Fig. 3, and the resiliency to return to an upright position, as shown, will cause the bracket to return to its normal position. The purpose of this unusual action of spring 20 is to produce a delicate and even tension on the bracket 18.

The bracket 13 is held in its place by the milled nut on the pintle 14, a portion of which is threaded. At one side of pintle 14 there is a second pintle 22, which serves as a support and pivot for a supply or reservoir roller 23, which consists of a roller composed of felt or other porous substance, held at the top and bottom by metal disks. The supply-roller 23 is made of several layers of felt, one of which is larger, so as to project circumferentially beyond the others.

The roller 12 and supply-roller 23 are first supplied with ink. When a key is depressed, the corresponding type-lever will be operated and the type on the free end will strike against the inking-roller 12, which is normally at the center of the flaring guide 11, and therefore in the path of all the type-levers. The impact of the type against roller 12 will cause the type to be inked and will cause the roller 12 and bracket 13 to rotate around pintle 14 out of the path of the type-lever and until roller 12 is arrested by coming in contact with supply-roller 23, as shown in dotted lines, Fig. 2.

The position of roller 12 shown in dotted lines is at a greater distance away from the flaring guide than is necessary merely to turn away out of the path of the type-lever, and if a type-lever were operated slowly the type end would merely push roller 12 out of the way, and said roller would not come in contact with supply-roller 23; but in the usual operation of the type-levers the rapidity is such that the impact of the type end of a type-lever against the roller 12 will cause it and bracket 13 by reason of momentum to swing around pintle 14 beyond the position for clearance out of the path of the type-lever, and I have found it advisable to place supply-roller 23 at some distance from the flaring guide on account of the momentum attained by roller 12. The roller 12 in this way takes ink from the supply-roller 23, and the result of the impact is also to turn sup-

ply-roller 23 slightly, so that during the continued operation the roller 12 will strike against the entire circumference of roller 23.

The roller 12 is made small and light, so as not to check the motion of the type-lever as it swings toward the printing-point; but the supply-roller 23 may be made of any desired size, so as to contain any quantity of ink, and it is therefore self-evident that the larger the supply-roller the more the writing that can be done without again applying ink. Both rollers may be modified in form without departing from the spirit of my invention. In the patents hereto granted to me and herein referred to the inking mechanism consists of a pad serving the same purpose as roller 12, and it is evident that the rollers herein shown may be modified and termed "pads" without departing from the scope of my invention.

In the claims I use the term "roller" to indicate the form of mechanism herein shown, and it is to be understood that any equivalent form of structure may be used and is intended to be covered by that term.

Although these improvements are applied to a machine invented by me, I do not limit myself to the structure shown, as this inking mechanism is applicable to any form of type-writing machine, whether of the type-lever class or type-wheel class, without departing from the spirit of my invention.

What I claim is—

1. An inking mechanism for type-writing machines comprising two rollers, one being relatively small and light, and constructed to be struck by the type mechanism, and to swing against the second roller which is relatively stationary and large, substantially as shown and described.

2. An inking mechanism for type-writing machines comprising two rollers, one having a stationary pivot, and the other a swinging pivot so constructed that the latter when struck by the type mechanism is caused to swing against the former, as set forth.

3. In a type-writing machine, the combination of a series of type-carriers, a platen, and two inking-rollers adjacent to the platen, so constructed that one of them is in the path of all the type-carriers, and when struck by a type-carrier is caused to strike against the other inking-roller, as set forth.

4. An inking mechanism for type-writing machines comprising two rollers, one having a motion when struck by the type which causes it, by reason of momentum to go out of contact with the type and to strike the other roller which is relatively stationary, substantially as shown and described.

5. In a type-writing machine, the combination of an inking-roller constructed to swing when struck by a type-carrier, and a supply-roller constructed to act as a buffer and arrest the swinging motion of the inking-roller, substantially as shown and described.

6. In a type-writing machine, the combina-

tion of an inking-roller situated in the path of the type-carriers and arranged to swing out of such path when struck by a type-carrier, and a supply-roller positioned at some distance away from the path of the type-carriers, as shown and described.

7. In a type-writing machine, the combination of an inking-roller constructed to swing when struck by a type-carrier, and a supply-roller relatively stationary and constructed to act as a buffer and arrest the swinging motion of the inking-roller, substantially as shown and described.

8. In a type-writing machine, the combination of type mechanism having a plurality of type in one line, with an inking-roller constructed to be struck by only one of the type and to swing against a supply-roller substantially as set forth.

9. In a type-writing machine, the combination of a type-carrier having a plurality of type in one line, with an inking-roller constructed to swing in a right-angled direction to the line of type, and to swing against a supply-roller, as set forth.

10. An inking mechanism for type-writing machines comprising a small roller and a relatively large roller together with type mechanism, all normally out of contact with each other, and so constructed that the type when operated strike the small roller and take the ink therefrom, and the latter strikes the large roller and takes the ink therefrom, as shown and described.

11. An inking mechanism for type-writing machines comprising an inking-roller positioned so as to be struck at approximately the same place by the type mechanism and ink the type, and a supply-roller constructed to be struck by the inking-roller and supply the latter with ink, substantially as shown and described.

12. In a type-writing machine, the combination of a type-carrier, a guide for said carrier at or near the printing-point, and an inking-roller approximately central with the guide and constructed to be struck by the type-carrier and to swing against a supply-roller, as set forth.

13. An inking mechanism for type-writing machines comprising an inking-roller secured in a swinging bracket, said bracket having a projection which connects it to a spring-pressed bracket; both brackets swinging around an extension of the same axle, substantially as shown and described.

14. In a type-writing machine, the combination of type-carriers with a swinging inking-roller and a stationary supply-roller; the axis of swinging roller being parallel with a line drawn from top to bottom of the type on the type-carrier.

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