

F. W. SICKLES.  
TYPE WRITING MACHINE.  
APPLICATION FILED FEB. 8, 1908.

928,225.

Patented July 13, 1909.

Fig. 1.

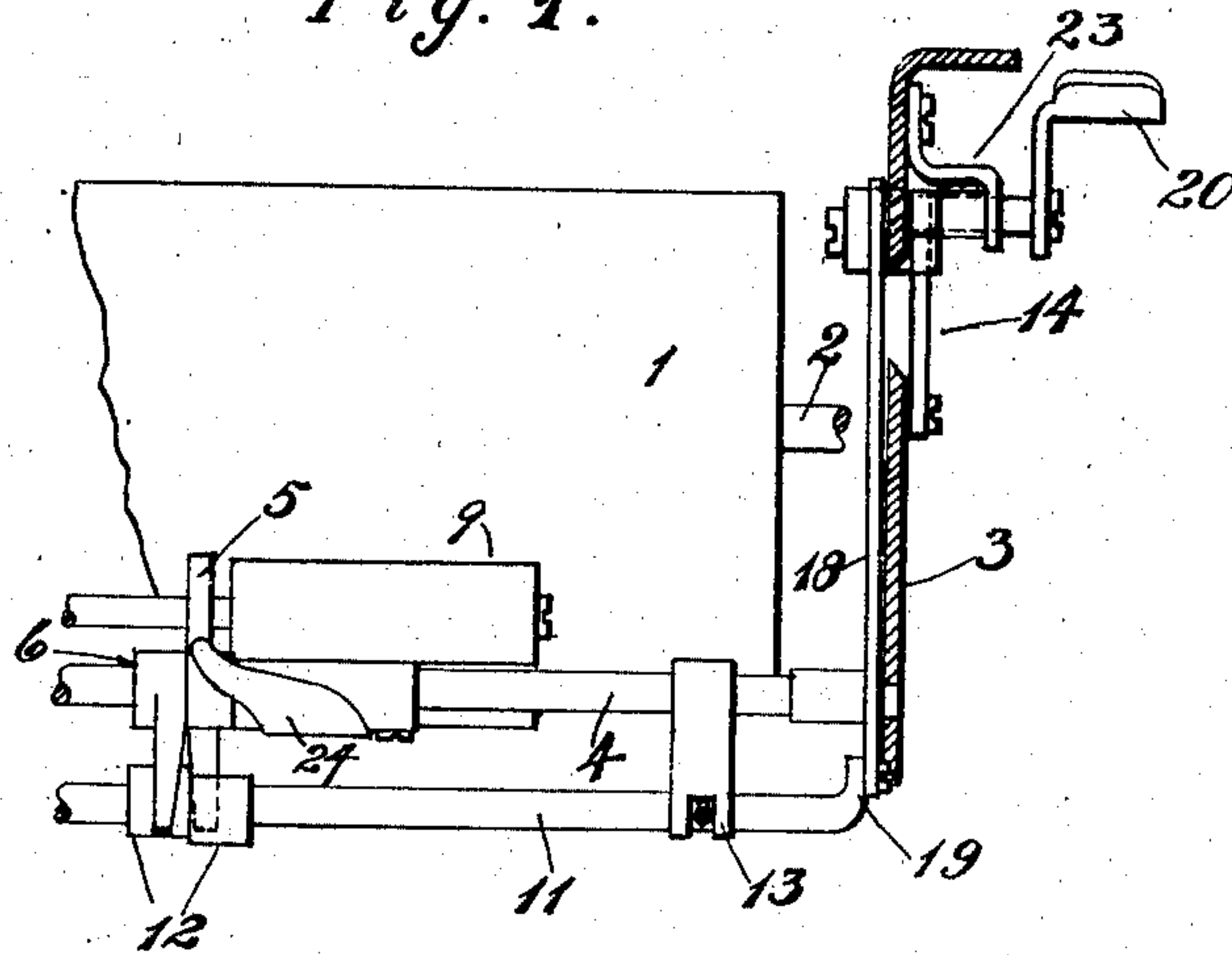


Fig. 2.

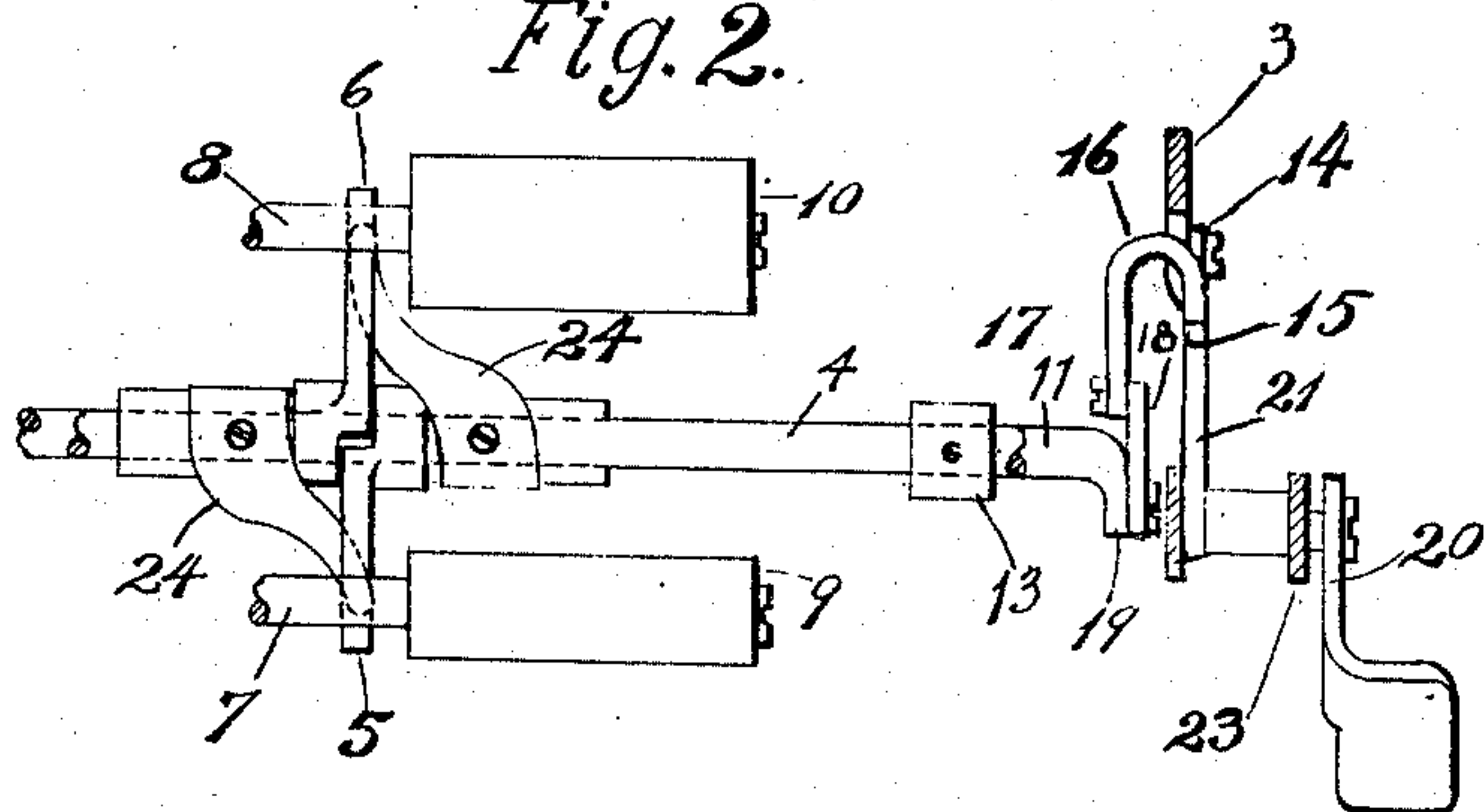


Fig. 3.

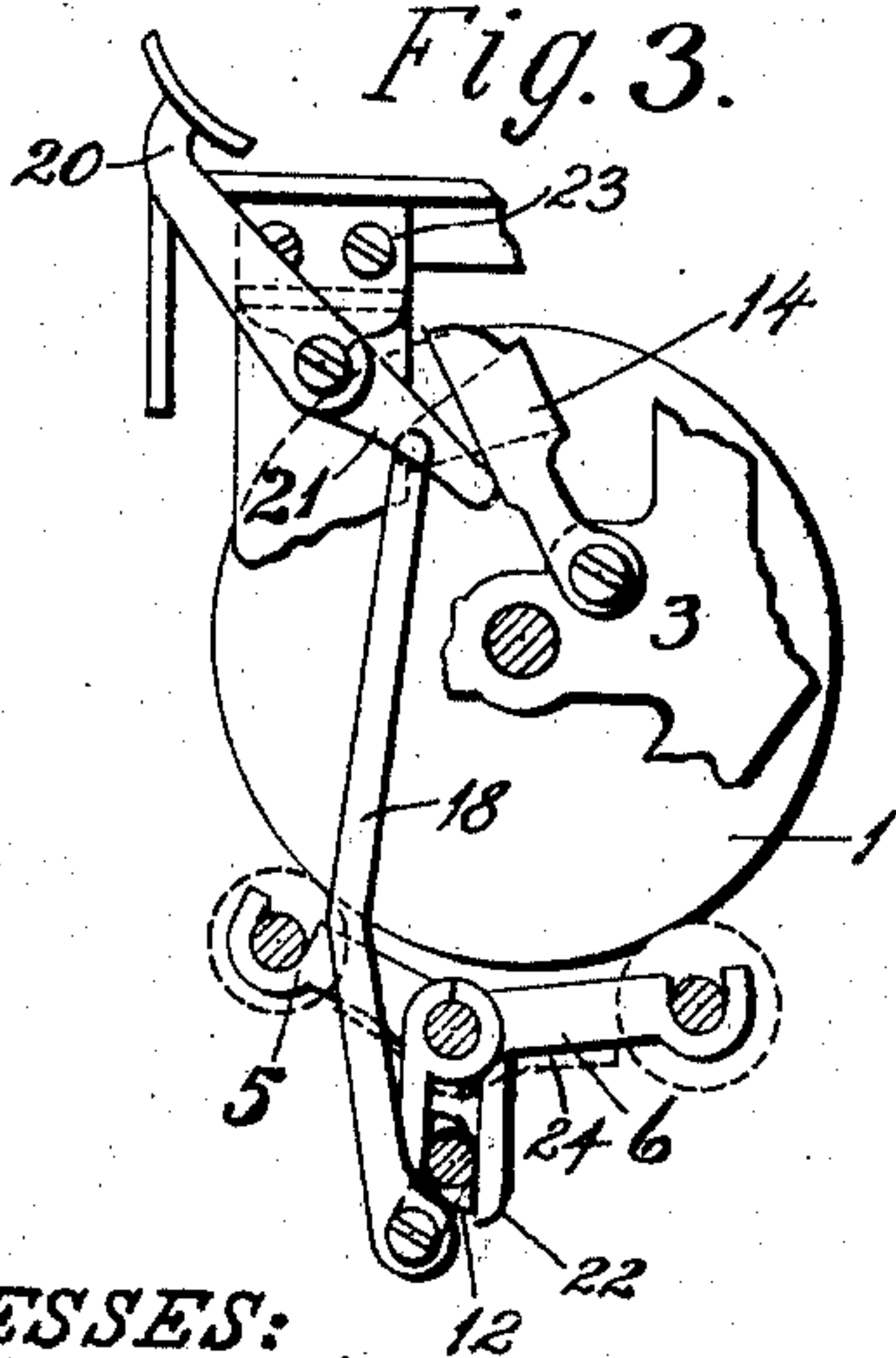
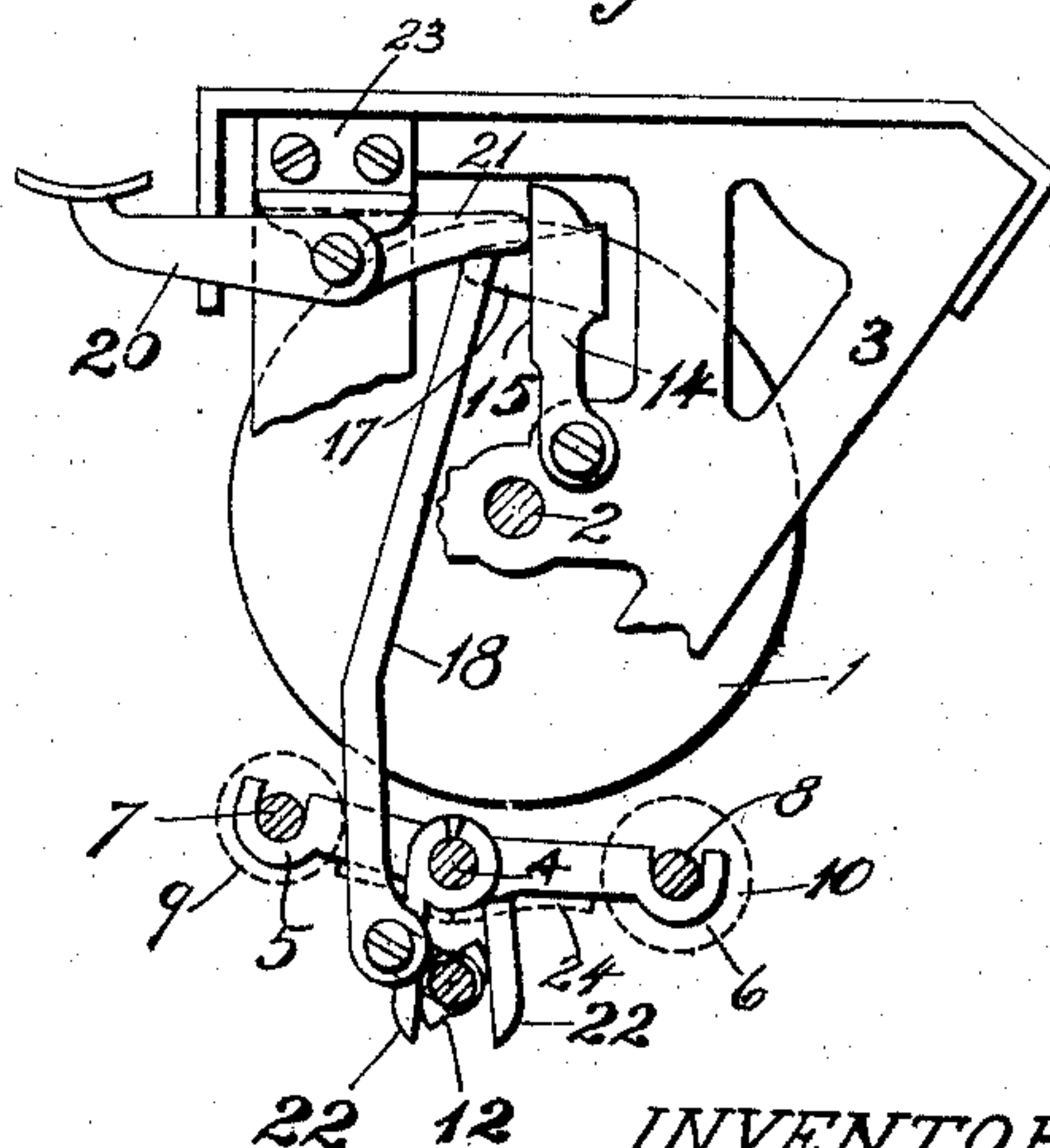


Fig. 4.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

FRANK W. SICKLES, OF HARTFORD, CONNECTICUT, ASSIGNOR TO UNDERWOOD TYPEWRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

## TYPE-WRITING MACHINE.

No. 928,225.

Specification of Letters Patent.

Patented July 13, 1909.

Application filed February 8, 1908. Serial No. 414,901.

*To all whom it may concern:*

Be it known that I, FRANK W. SICKLES, a citizen of the United States, residing in Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to the paper-feeding devices of typewriting machines, in which the paper is fed around the platen by means of spring-pressed rollers running thereon.

The object of the invention is to provide efficient and simple means for moving and locking the pressure rollers out of engagement with the platen.

I pivot a finger lever upon the platen frame, having an arm engageable with a cam edge formed on a second lever, the latter also pivoted upon the platen frame and connected to a rock-shaft which releases the rollers from the platen. The cam edge cooperates with the finger lever to lock the latter and hence the pressure rolls in abnormal or release positions.

In the accompanying drawings, Figure 1 is a fragmentary front elevation of a platen frame, platen and paper-feeding mechanism including improvements applied thereto. Fig. 2 is a plan view of parts shown in Fig. 1. Fig. 3 is an end view of a typewriter platen, showing the parts in normal positions. Fig. 4 is a view similar to Fig. 3 but with the key depressed and rollers released and locked out of engagement with the platen.

The platen 1 is mounted on an axle 2 journaled in the ends 3 of the platen frame. A tie-rod 4, connecting the ends of the platen frame, carries spring-pressed swinging arms 5, 6, in which are journaled shafts 7, 8, whereon are mounted rollers 9, 10, pressed by said arms against the platen. A rock-shaft 11 having roll-releasing cams 12 thereon is journaled in brackets 13 secured to the rod 4.

To release the rods, I pivot upon the platen frame a lever 14, having a cam edge 15, and bent reflexly as at 16, to form an ear 17, connected to rock-shaft 11 by a link 18, pivoted to a crank 19 upon the rock-shaft. Also pivoted upon the platen frame

is a finger-lever 20 having an arm 21 to engage the cam edge 15 of lever 14. 55

In Fig. 3 the parts are in normal positions. When the finger lever 20 is depressed, the arm 21 bears against the cam edge 15 of the lever 14, moving the same from the Fig. 3 to the Fig. 4 position, giving an upward pull to link 18, rocking shaft 11, and causing cams 12 to bear against horns 22 of arms 5, 6, thereby throwing the rollers out of engagement with the platen. 60

The finger lever 20 is depressed sufficiently to carry the arm 21 beyond the "dead center", thereby wedging the lever 14 in its uppermost or abnormal position, or automatically locking said lever and the pressure rolls in release positions. The downward movement of lever 20 is limited by its supporting bracket 23. 65 70

To return the parts to normal positions, the finger lever 20 is raised, releasing the lever 14 and allowing the same to drop, thereby rocking the shaft 11, and releasing the arms 5, 6, and permitting springs 24 to press the rolls against the platen. 75

Having thus described my invention, I claim: 80

1. In a typewriting machine, the combination with a platen, a platen frame and a pressure roll to run on the platen, of a lever pivoted upon the platen frame, a link pivoted at one end to said lever and at the other end to means for releasing the pressure roll, and a finger lever pivoted upon the platen frame and having an arm to engage a cam formed on the first lever to operate and lock said releasing means. 85 90

2. In a typewriting machine, the combination with a platen, a pressure roll to run thereon, and a platen frame, of a finger lever pivoted upon the platen frame and having an arm, a second lever having a cam edge engageable by said arm, the latter rotatable to a position to lock the arm in abnormal position, an ear formed upon said cam arm, a link pivoted to said ear, and a roll-releasing rock-shaft having a crank to which is pivoted the other end of said link. 95 100

3. In a typewriting machine, the combination with a platen frame, a platen and releasable rollers running thereon, of means to release and lock the rollers out of engagement with the platen, comprising a rock- 105



shaft, a lever pivoted upon the platen frame and engaging with a cam edge on a second lever also pivoted upon the platen frame and connected to the rock shaft, and means operated by the latter to release the rollers.

4. In a typewriting machine provided with a platen and a platen frame, the combination with pressure rollers to run upon the platen, of a rod supporting spring-pressed roller-carrying arms, a rock-shaft having cams thereon engaging with said arms, a lever

having a cam edge pivoted upon the platen frame and connected to the rock-shaft, and a finger lever also pivoted upon the platen frame and having an arm engaging with the cam edge on the first named lever, to release and lock the rollers out of engagement with the platen.

FRANK W. SICKLES.

Witnesses:

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