

N. C. DARROW.
TYPE WRITING MACHINE.

(Application filed Sept. 9, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig 1

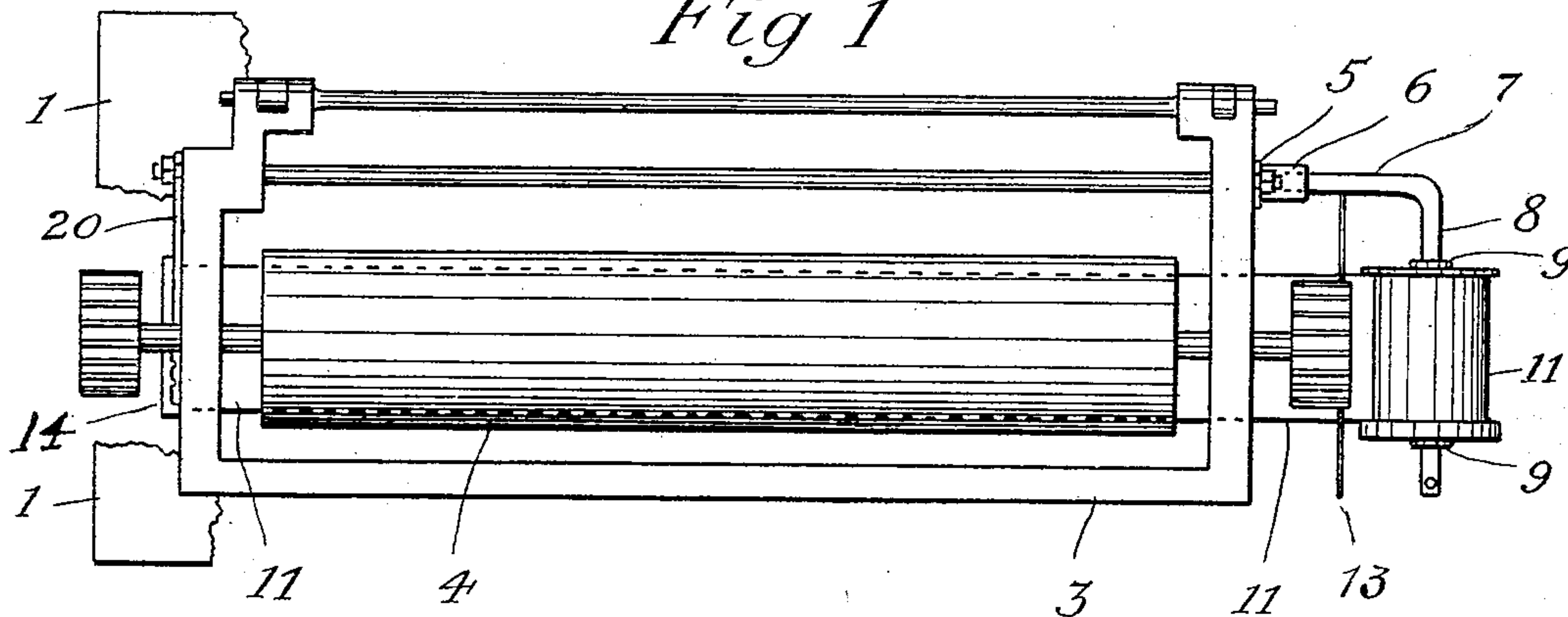


Fig 2

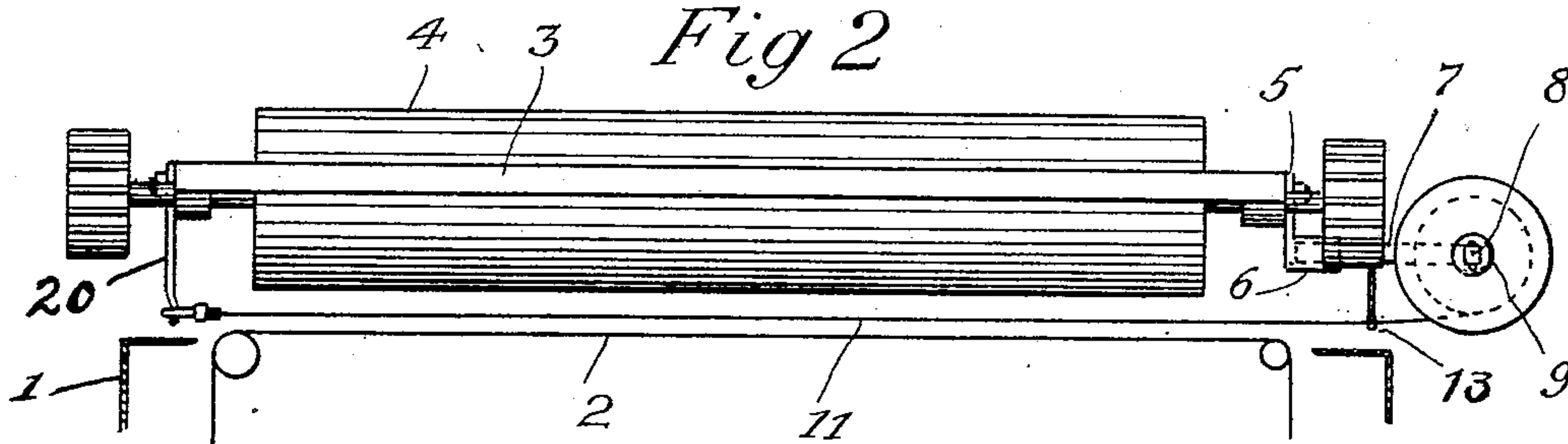
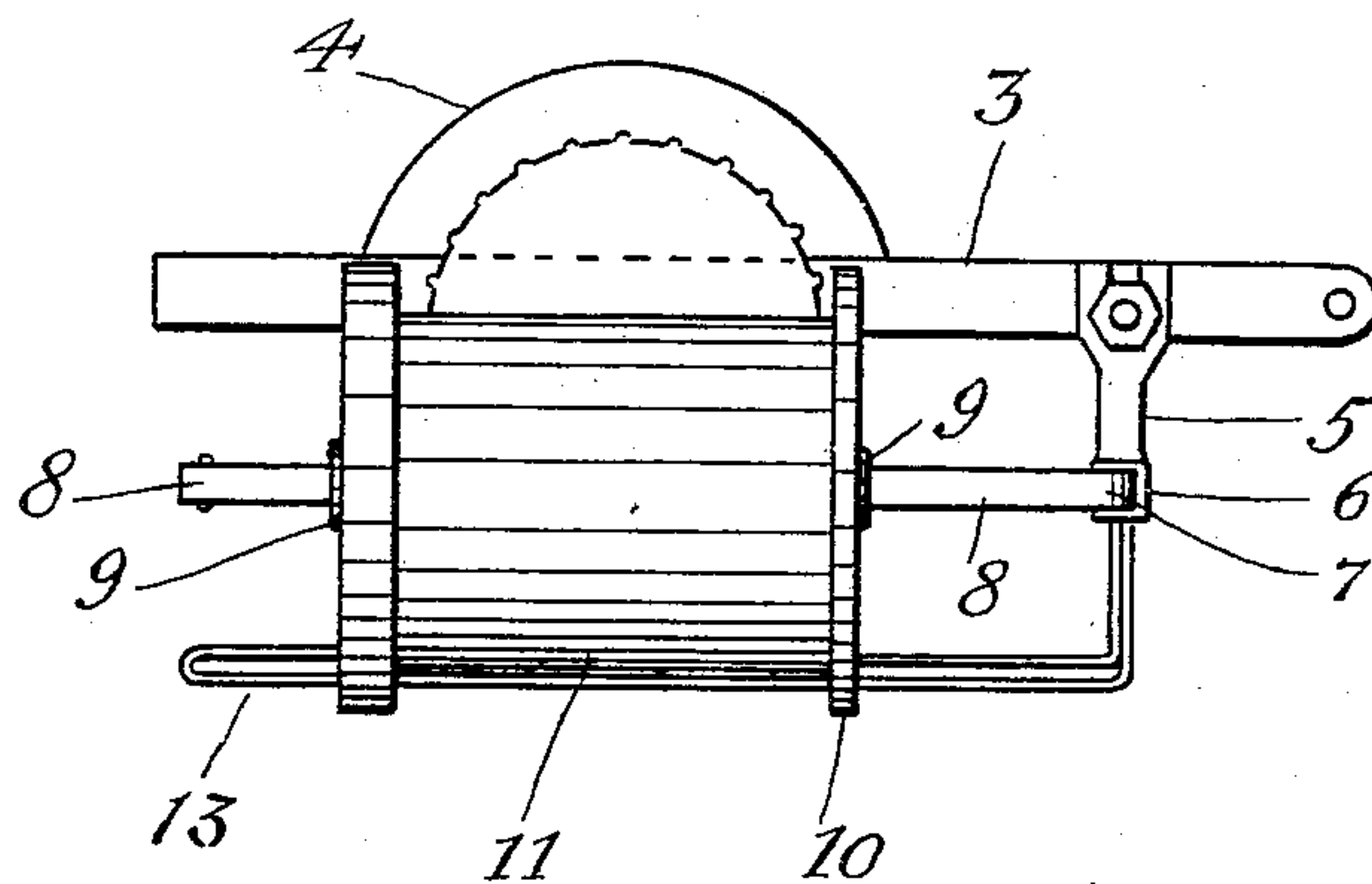


Fig 3



Witnesses
 Theo. Laggard
 M. F. Harrison.

Inventor
Noble C. Darrow
By P. H. Gunkel
his Attorney.

UNITED STATES PATENT OFFICE.

NOBLE C. DARROW, OF MINNEAPOLIS, MINNESOTA.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 704,242, dated July 8, 1902.

Application filed September 9, 1901. Serial No. 74,757. (No model.)

To all whom it may concern:

Be it known that I, NOBLE C. DARROW, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

My invention relates to ribbon attachments for type-writing machines; and its object is the provision of means for the attachment to the machine of a second ribbon of different color from the ribbon normally used and for interposing it between the type and printing-point from time to time as the operator of the machine may desire.

Stated in a general way, my improvements comprise a ribbon-spool attached to one end of the carriage or frame in position to permit the ribbon to be drawn across the printing-point when desired and held in place by a catch or other device until released by the operator and a spring or equivalent device for retracting the ribbon when so released. By these means printing in two colors successively may be conveniently and quickly done without removal of the ribbon normally used or the paper.

My improvements are illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a type-writer carriage provided with my improvements and showing a portion of the machine-frame and the ordinary ribbon of a "Remington" type-writer. Fig. 2 is a front elevation of the same. Fig. 3 is a view from the right of Figs. 1 and 2, showing the manner of attaching the supplemental ribbon to the carriage. Fig. 4 is a view from the left of Figs. 1 and 2, showing the devices for holding the end of the latter ribbon. Figs. 5 and 6 are details of such holding devices. Fig. 7 shows a horizontal section of the spool, and Fig. 8 a vertical section of the same on the line xx of Fig. 7.

In the drawings, 1 designates the upper portion of a type-writing-machine frame; 2, the inked ribbon mounted thereon in the usual way; 3, the paper-carriage, and 4 an ordinary cylindrical platen supported by the carriage.

To one end of the carriage, preferably that at the right of the machine, is secured a bracket 5, having at its lower end a socketed

head 6 for supporting the carrier of the supplemental-ribbon spool. This carrier may consist of a bar 7, having its end adapted to fit in the socket of the head 6, so as to be readily removable therefrom when desired, and having an arm 8 extending in horizontal direction at right angles to the axis of the platen and preferably below the platen. On the arm 8, which may be angular, is a slidable sleeve 9, which constitutes the axis of the spool 10 and provides the means for its adjustment along the arm 8, as well as for its rotation to feed or retract the ribbon 11. A coil-spring 12, suitably connected in one of the heads of the spool, serves to rotate the spool and wind up the ribbon. To guide and support the ribbon in proper position relative to the platen, a slotted guide 13 is secured to the bar 7 and extends parallel to the arm 8 and between it and the platen, the ribbon passing through the slot of the guide.

The end of the ribbon is attached to a clamp, which prevents it from being pulled through the slot of the guide 13 by the action of the spring, and the clamp also serves as the means for connecting the end of the ribbon to the opposite end of the carriage. The clamp may consist of a base member 14 and a hinged member 15, with a running loop 16 for pressing the gripping members together to hold the ribbon. The outer portion of the member 14 has a transverse slot 18 for engaging a hook or other device for holding it in place, and the outer wall of the slot is notched, as at 19, to prevent the clamp from slipping laterally on the hook.

For engaging the ribbon-clamp the opposite end of the carriage is provided with an arm 20, extending downward at a proper inclination and terminating in a hook 21 at a point directly beneath the platen and in line with the vertical plane of its axis and above the plane of the principal ribbon 2.

In use the operator type-writes in the usual way, utilizing the ribbon 2 as the inking medium until he wishes to change the color of succeeding print. To effect such change, it is only necessary to lift the carriage, pull the end of the ribbon 11 across, and connect its clamp to the hook 21, replace the carriage, and resume operation of the machine. As the ribbon 11 lies between the ribbon 2 and

the platen, the former ribbon will determine the color of the print. To again make use of the ribbon 2, the clamp is freed from the hook, and the spring-actuated spool will retract the interposed ribbon. As the spool is adjustable along the arm 8 and the ribbon-clamp is correspondingly adjustable as to its connection with the hook 21, the ribbon can be adjusted laterally so that its entire width can be utilized. By this means the operator may normally print in one color—black, for instance—and with but slight interruption to the work change to another color—red, for instance—and again resume with the original color with little trouble or loss of time.

Obviously similar means may be utilized to accomplish the same results in other forms of type-writing machines by the exercise of ordinary mechanical skill in modifying and arranging the connecting parts, and I therefore do not wish to confine myself to the use of my improvements in connection with a specific form of machine nor to limit myself to the specific devices illustrated.

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

1. In a type-writing machine, the combination with usual inking means, of a secondary inking-ribbon differing in color from said normal inking means, a spool therefor, means for connecting the spool to one end of the paper-carriage, and means for temporarily connecting the unwound portion of the ribbon to the opposite end of the carriage, whereby the ribbon may be periodically presented at the printing-point to produce print differing

in color from the normal, substantially as set forth.

2. In a type-writing machine, the combination with usual inking means, of a secondary inking-ribbon differing in color from said normal inking means, a spool therefor, means for connecting the spool to one end of the paper-carriage, a spring for rotating the spool to wind the ribbon, a clamping device for the free end of the ribbon, and means for temporarily connecting such clamp to the opposite end of the carriage, whereby the ribbon may be periodically presented at the printing-point to produce print differing in color from the normal, substantially as set forth.

3. In a type-writing machine, the combination with usual inking means, of a secondary inking-ribbon differing in color from said normal inking means, a spool therefor, means for connecting the spool to one end of the paper-carriage, a spring for rotating the spool to wind the ribbon, a clamping device for the free end of the ribbon, and means for shifting the spool longitudinally on its axis and means for shifting the clamp correspondingly, whereby successive portions of the ribbon may be periodically presented at the printing-point to produce print differing in color from the normal, substantially as set forth.

In testimony whereof I have hereunto set my hand this 28th day of August, 1901.

NOBLE C. DARROW.

In presence of—

M. F. HARRISON,
P. H. GUNCKEL.