

W. H. PARHAM.
PAPER FEEDING MECHANISM.
APPLICATION FILED JULY 26, 1909.

1,083,294.

Patented Jan. 6, 1914.

2 SHEETS—SHEET 1.

Fig. 2.

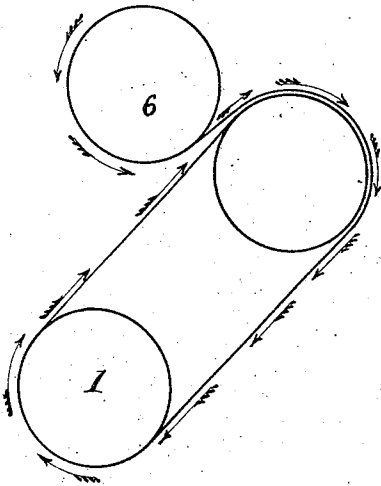
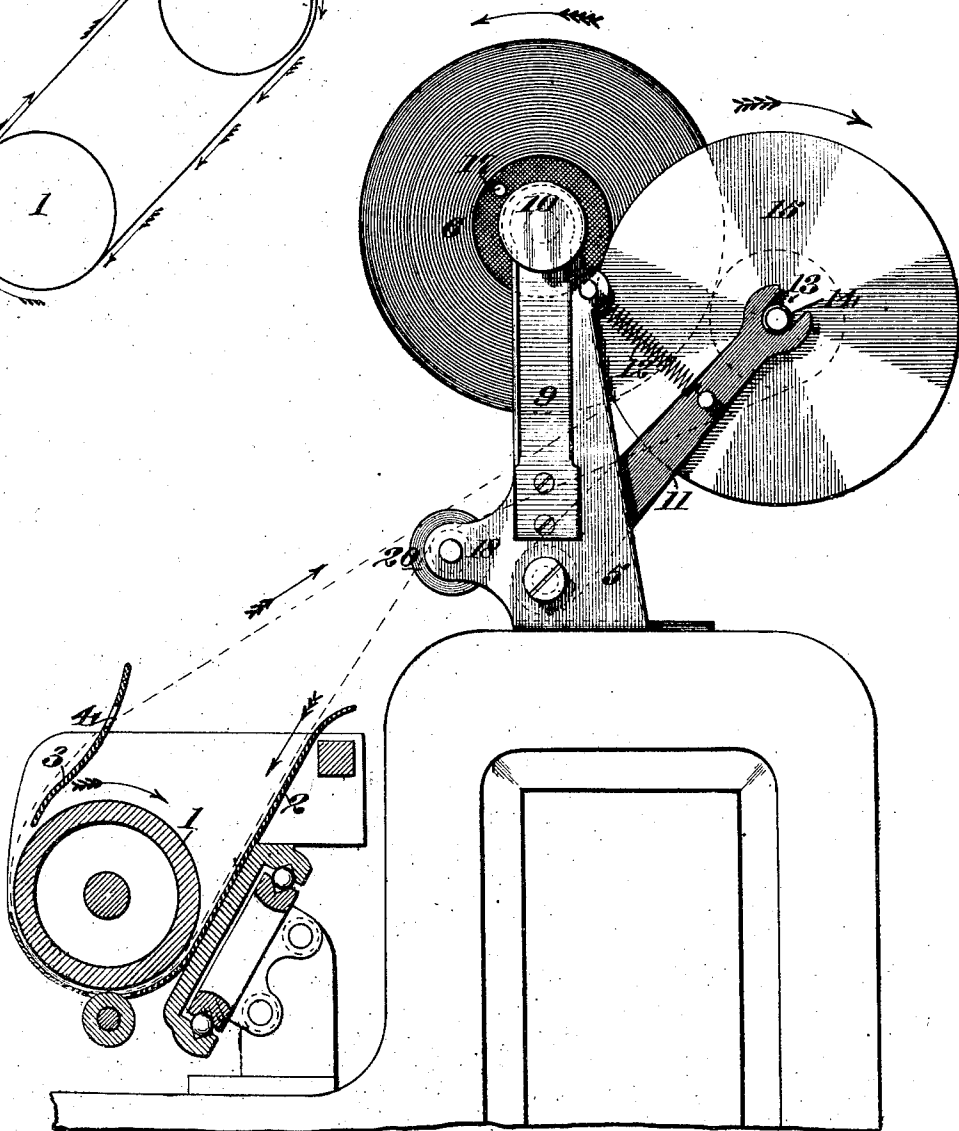


Fig. 1.



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2 SHEETS-SHEET 2.

Fig. 3.

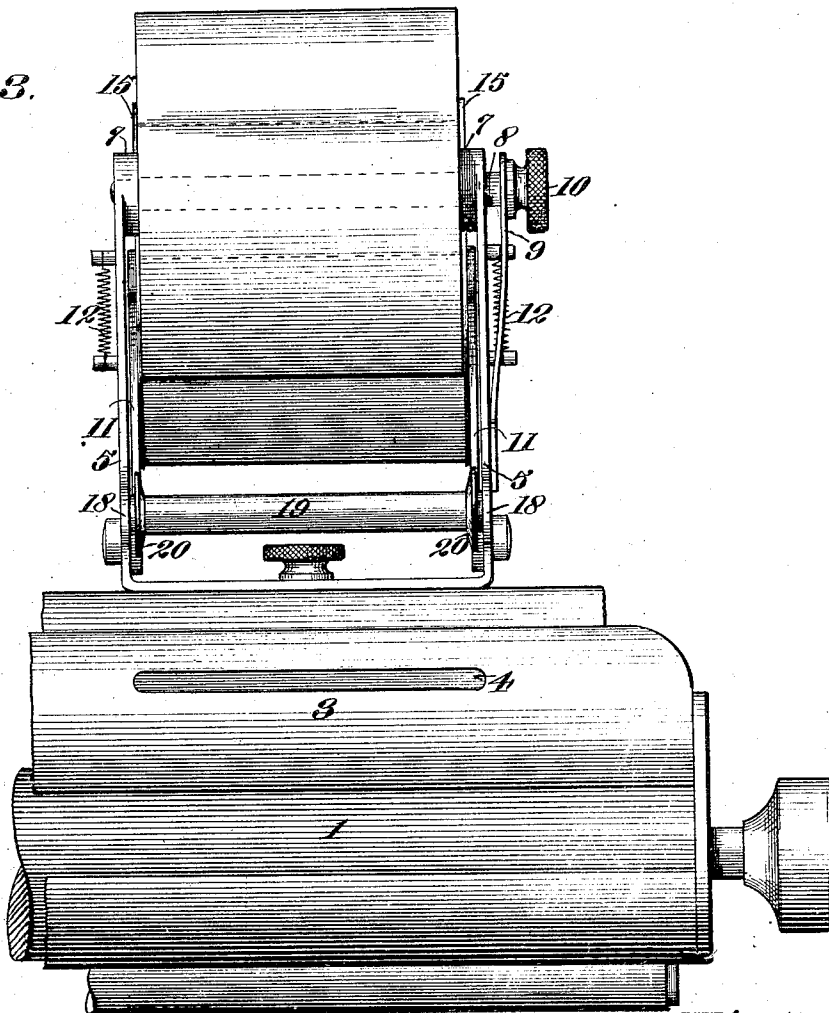


Fig. 4.

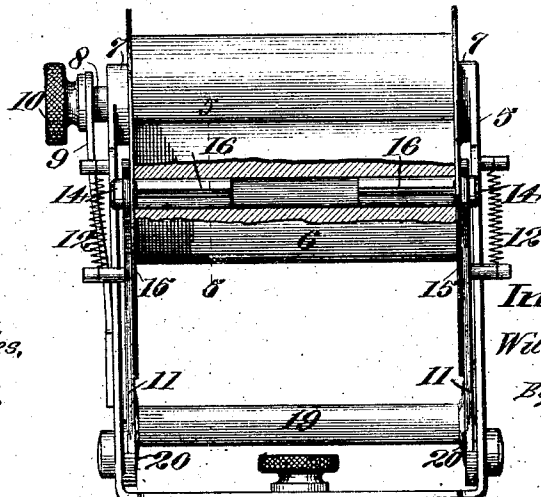
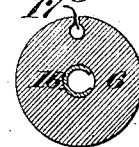


Fig. 5.



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UNITED STATES PATENT OFFICE:

WILLIAM H. PARHAM, OF KNOXVILLE, TENNESSEE, ASSIGNOR TO DALTON ADDING MACHINE COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

PAPER-FEEDING MECHANISM.

1,083,294.

Specification of Letters Patent.

Patented Jan. 6, 1914.

Application filed July 26, 1909. Serial No. 509,583.

To all whom it may concern:

Be it known that I, WILLIAM H. PARHAM, a citizen of the United States, residing at Knoxville, Knox county, Tennessee, have invented a new and useful Paper-Feeding Mechanism, of which the following is a specification.

This invention relates to paper feeding mechanism for recording machines, and has for an object to provide an improved paper feeding mechanism whereby the paper will be automatically fed to the recording mechanism when the machine is operated, and then re-wound onto a suitable roller whereby the paper will be supported and prevented from becoming torn or defaced.

Another object is to provide, in combination with the recording mechanism of a recording machine and the paper feeding mechanism thereof, a roller arranged to operate automatically to receive and rewind thereon the paper as it passes from the recording mechanism, whereby said paper will be supported in good condition and from which the paper may be again fed into the machine and receive records on the opposite side in such instances as may be found desirable.

With these and other objects not requiring special mention in view, the invention consists in the novel and simple construction and arrangement herein shown, described and claimed, reference being made to the accompanying drawings for a more complete understanding of the construction and arrangement of the parts comprising the invention.

In the drawings Figure 1 is a side elevation of a preferred form of my invention applied to an adding machine of well known construction. Fig. 2 is a diagram illustrating the operation of the paper from the primary roll to the recording mechanism and thence to the secondary roll onto which the paper is wound after receiving the record. Fig. 3 is a front elevation of the device and a part of the paper feed mechanism. Fig. 4 is a rear elevation partially in section illustrating the construction of the secondary roll. Fig. 5 is a sectional view taken approximately on the line 5—5 of Fig. 4.

The platen 1 of the machine may be of any suitable construction and operation, and in the present instance receives the paper from the paper guide 2 by which the paper

is guided to and around the platen. A paper table 3 is arranged within the carriage and preferably is provided with a slot 4 through which the paper may pass after having received the record.

Upon the top of the case of the machine two standards 5 are secured. The paper roll is supported between the ends of the standards 5 upon the usual core or spool 6, the standards being provided with bosses 7 to engage against the ends of the core or spool without engaging with the edges of the paper wound thereon. An axial bolt or rod 8 passes through a hole in one of the standards 5 and makes threaded engagement with the boss at the upper end of the opposite standard, said bolt passing through a hole in the spool or core and constituting an axis whereon the paper roll may revolve. A spring plate 9 is attached to the standard through which the bolt 8 extends, and is provided with a hole to receive said bolt, said spring plate acting as a brake to hold the bolt 8 from accidental turning, by pressing against the head of the bolt. The bolt 8 is provided with a head 10 for manual engagement in mounting or removing the paper roll.

It has been customary heretofore with this class of machine, to feed the paper directly from the paper roll mounted between the standards 5 to the recording mechanism and thence to any point out of the way of the operator, no specific means being provided for taking care of the paper or to prevent its defacement. This has resulted in considerable inconvenience on occasions when it is desired to make permanent records for preservation, and the paper frequently becomes torn and entangled. To avoid this inconvenience I provide a secondary roll mounted adjacent to and operated by the primary paper roll effectively to receive and wind thereon the paper passing from the recording mechanism. Two arms 11 have their lower ends pivoted to or adjacent to the standards 5, the free ends of said arms being supported by springs 12 connecting them with said standards 5. The upper ends of the arms 11 have notches 13 arranged to receive projections or bosses 14 on the spool end disks 15, two of which are provided. Each of said disks has on its inner face a slotted tubular projection 16 capable of expansion or contraction for purposes of

adjustment. One of the cores 6 may be mounted between the disks 15 as shown in Fig. 4, the extensions 16 being pressed into the hole in said core, thereby constituting a complete spool of which the disks 15 are the ends. The paper from the roll supported between the standards 5 should be fed from the underside of said roll over the spool supported by the arms 11 and thence to the recording mechanism. The free end of the paper may be attached to the core between the disks 15 in any known or suitable manner. One convenient way of adjustment is to provide the core 6 with a longitudinal hole and slot 17 within which the end of the paper may be secured. The paper being moved over the spool supported by the arms 11 performs the function of a belt rotating said spool and winding thereon the paper passing from the recording mechanism. The two spools will be held substantially in the same relation at all times, owing to the fact that as the paper is fed from the primary roll the secondary roll is increased in size by the addition of the paper winding thereon.

The standards 5 are provided with extensions 18 in which a roller 19 is journaled between the paper rolls and the platen. The paper passing from the secondary paper roll to the platen passes over the roller 19 between the flanges 20 thereon and is thereby properly guided and held from lateral movement.

It is obvious that there may be various designs of the present invention and that there may be different methods of attaching the device to machines of the different constructions. The embodiment shown is constructed especially for the adding machine of the "Dalton" type constructed in substantial accordance with the adding mechanism shown in application Serial No. 140,390, filed by Hubert Hopkins, and patented in England, No. 854, of 1904, but with slight variations within the skill of any mechanic it may be applied as readily to machines of other manufactures.

I am aware that there may be modifications and alterations in the construction and arrangement of the parts embodying this invention without departure from the spirit and scope of the invention, and I do not re-

strict myself to identical features of construction or arrangement, but

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

1. In a recording machine, the combination with a platen rotatively mounted therein, of a stationary roll support for supporting a roll of paper to be fed to the platen, a second roll support pivotally carried by said stationary support for supporting a roll to receive the paper from said stationary support bearing against the second-named roll to wind the paper thereon, means for pressing said pivoted support toward said stationary support, and means carried by said stationary support for guiding the paper between said rolls and the platen.

2. In a recording machine, the combination with paper feed mechanism mounted on the machine, of a stationary support, a spool supported by said stationary support arranged to hold a roll of paper, a second support pivoted upon said stationary support, a spool carried by said pivoted support and arranged to receive the paper passing from said stationary support, means for pressing said pivoted support toward said stationary support, and means for guiding the paper between said rolls and the platen.

3. In a recording machine, the combination with paper feed mechanism, of a stationary support, means for supporting on said stationary support a roll of paper to be fed to the paper feed mechanism, means between said feed mechanism and said roll for guiding the paper passing to said feed mechanism, a support pivotally mounted with respect to said stationary support, a spool on said pivoted support arranged to receive the paper from said stationary support bearing thereagainst to wind the paper thereon, means for attaching the free end of the paper to said spool, and means for pressing said pivoted support toward said stationary support.

In testimony whereof, I hereunto affix my signature to this specification this 15th day of July, 1909, in the presence of two witnesses.

WILLIAM H. PARHAM. [L. s.]

Witnesses:

R. H. PICKELL,
E. N. JONES.