A. J. WEID.

INKING REEL.

APPLICATION FILED JAN. 20, 1920.

1,377,532. Patented May 10, 1921.

Fig. 1

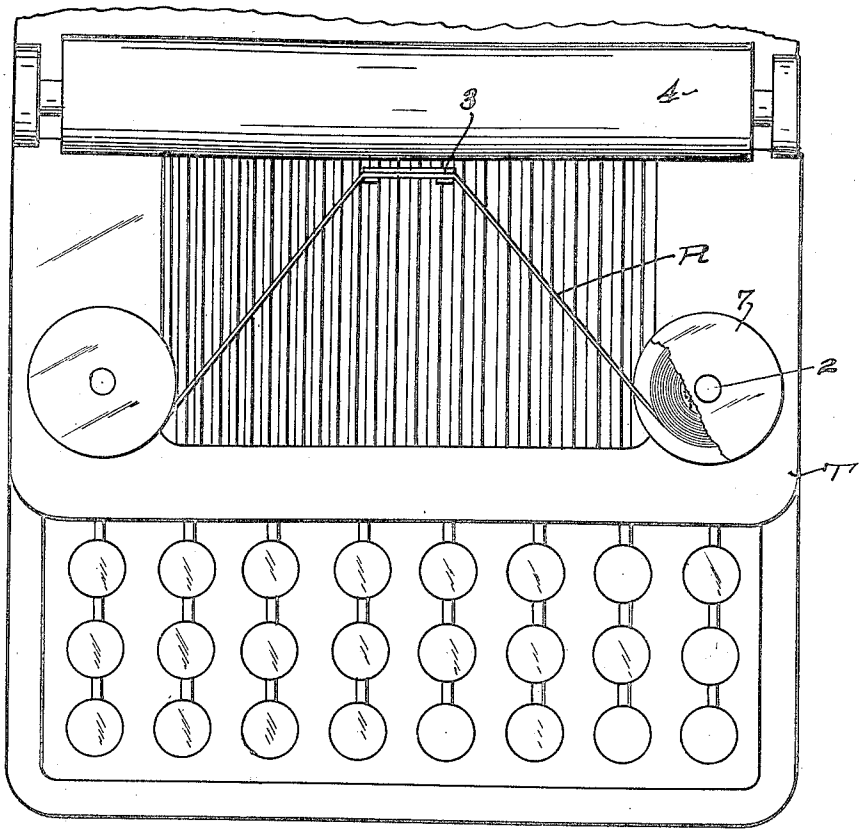


Fig. 2

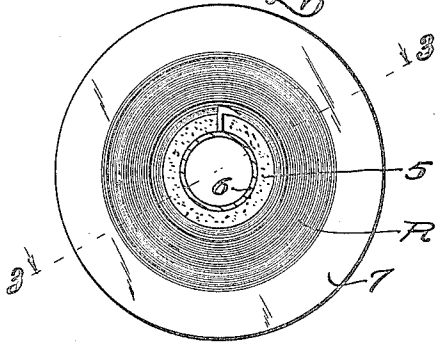
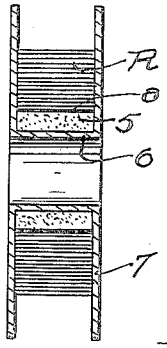


Fig. 3



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INKING-REEL.

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Application filed January 20, 1920. Serial No. 352,787.

To all whom it may concern:

Be it known that I, AXEL J. WEID, a citizen of the United States, residing at Venice, in the county of Los Angeles and State of California, have invented new and useful Improvements in Inking-Reels, of which the following is a specification.

This invention relates to printing transfer apparatus and particularly to movable ribbons or strips designed to be passed as between a percussion member and a platen member to imprint characters on an interposed object, and the invention has for its object to provide improvements in typewriters, adding machines, check protectors and like machines that utilize an ink carrying ribbon that is normally positioned between the character bearing members of the machines and the platen. The invention consists of the construction, the combination and in details and arrangements of the parts an embodiment of which is illustrated in the accompanying drawings and described and claimed herein.

Figure 1 is a view of a typewriter showing the ribbon reels thereon, one of the reels being broken away to indicate the applied invention.

Fig. 2 is a plan view of the improvement detached from the typewriter.

Fig. 3 is a transverse section on line 3—3 of Fig. 2.

The present invention relates particularly to a novel means for replenishing the inking agent by which an impression is made upon an interposed object when a printing member is impinged upon the inking agent, and while the invention is shown as incorporated in a ribbon applicable to typewriters it is to be understood that the invention may be utilized in various other organizations involving printing means of the percussion or transfer type.

A conventional form of typewriter is indicated at T and this is provided with the usual reel supports 2 and a ribbon guide 3 in juxtaposition to the platen 4. The present invention resides in means for replenishing the inking substance that may be incorporated on the ribbon R for instance, and such means preferably comprises a core or central body designated by 5, that is formed of suitable absorbent material or material having the property of retaining a liquid inking substance, so that when the ribbon R is wound upon the saturated core the inking substance will, by capillary attraction, creep into the body of the ink ribbon R and therefore replenish the same. In some cases, for instance, as when a used-up ribbon R is connected to the saturated core 5 the latter may be readily placed upon the central sleeve or hub portion as 6 of a reel as 7.

Again the invention may be incorporated in an organization comprising the reel structure 7 with its central sleeve or hub 6 about which the ink reservoir or absorbent core may be arranged and the assembly of a fresh and unused ink ribbon R in such a combination, then the ink reservoir 5 will preferably be provided with an inclosing jacket of impervious material such jacket indicated at 8 so that the fresh or unused ribbon R may be utilized as for ordinary cases until its supply of ink has been so diminished as to render the ribbon further unserviceable. When in such condition the intermediate impervious protecting band or jacket 8 may then readily be removed when it is exposed by the unwinding of the ribbon from the reel 7, and when the ribbon is rewound on the exposed reservoir or saturated medium 5 the inking substance thereof will creep outwardly or be absorbed in the surrounding layers of the ribbon R and the latter will therefore be reinked.

It will be understood that the absorbent core can be removed and either resaturated with a fresh supply or may be discarded and an entirely new saturated core or reservoir inserted.

In practically all the typewriters and adding machines that are now in general use, the inking ribbons are wound upon small metal spools and suitable means are provided for slowly rotating these spools, first in one direction and then in the other in order to wind the inking ribbon first onto one spool and then onto the other, such winding action being relatively slow. Where the ribbon is wound onto a spool the layers of said ribbon are in direct contact with each other, with the inner layer, or end of the ribbon, in direct contact with the absorbent ink bearing core 5, and, I have demonstrated in practice, that in a relatively short time ink will pass, by capillary attraction, from the saturated core into and through the superimposed layers of the ribbon until the entire body thereof is re-inked to such a degree as

to perform its proper functions when struck by a printing character and moved into contact with paper upon the platen.

It will be readily understood that minor changes in the size, form and construction of the various parts of my improved inking device may be made and substituted for those herein shown and described without departing from the spirit of my invention, the scope of which is set forth in the appended claims.

Various changes may be made without departing from the spirit of my invention as claimed.

I claim:

1. The combination, with a spool that is adapted to receive an inking ribbon, of an absorbent member saturated with an inking substance, which member is positioned on the hub portion of the spool.

2. An ink replenishing device for typewriter or other like ribbons applied to the hub of the spool upon which the ribbon is wound, and said device containing an inking substance which latter will, under capillary attraction, enter an inking ribbon when the latter is wound thereon.

3. The combination with means attached to the hub portion of the reel or spool of a typewriter ribbon for replenishing the ink supply of the ribbon; said means having the property of carrying the inking substance; of a sheathing or jacket to envelop the said means until a previous impregnation in the ribbon has been used out of the ribbon.

4. The combination, of a reel, and an ink saturated core mounted on the hub portion of the reel, said reel having an absorbent ribbon wound thereon and replenished with ink from the ink supply core when the original charge of ink in the ribbon has been used out.

In testimony whereof I have signed my name to this specification.

AXEL J. WEID