W. F. STRAUB.

INKING SYSTEM.

APPLICATION FILED DEC. 9, 1912.

1,116,155.

Patented Nov. 3, 1914.

2 SHEETS—SHEET 1.

Fig. 1

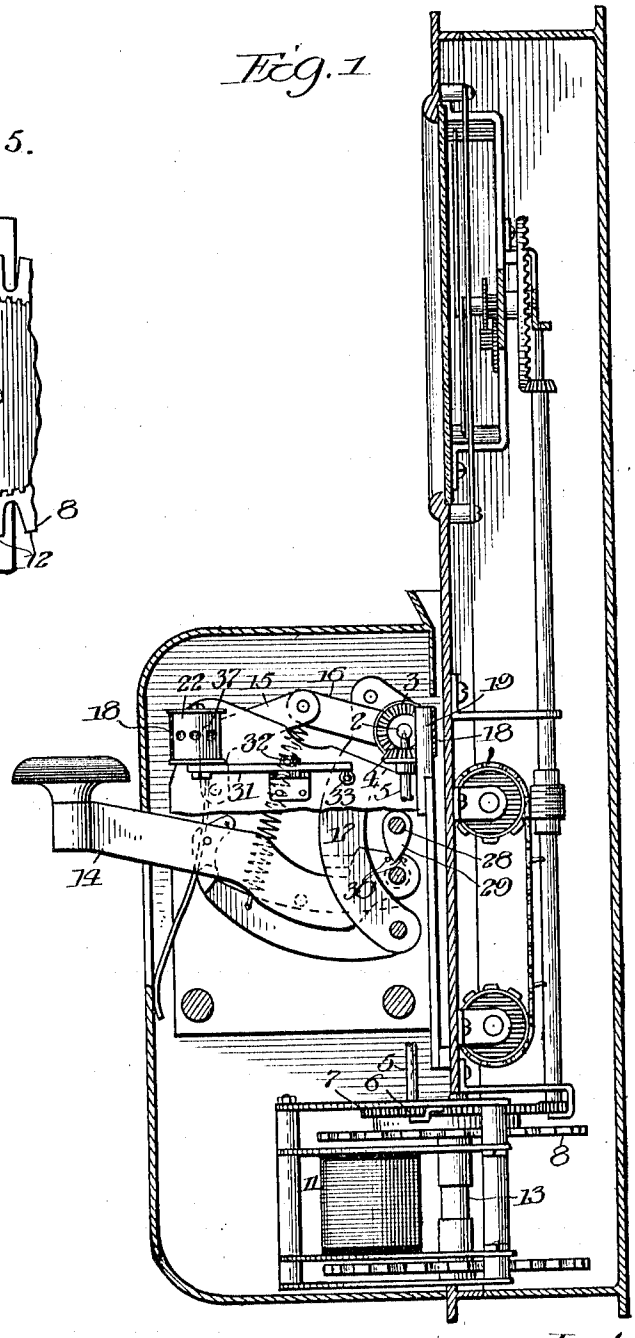
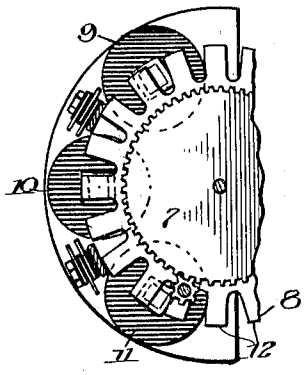


Fig. 5.



Witnesses
Chas. Wernicke
Hazel Jones

Inventor
William F. Straub
by Chas. W. Zabel Atty.

W. F. STRAUB.

INKING SYSTEM.

APPLICATION FILED DEC. 9, 1912.

1,116,155.

Patented Nov. 3, 1914.

2 SHEETS—SHEET 2.

Fig. 2.

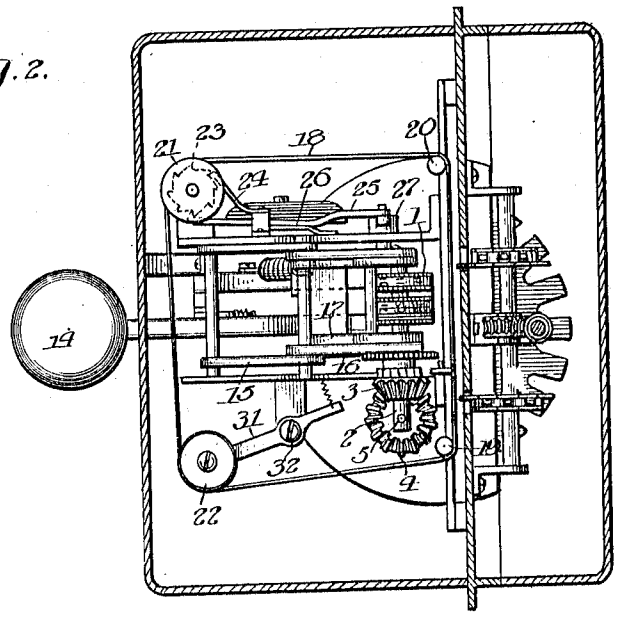


Fig. 3.

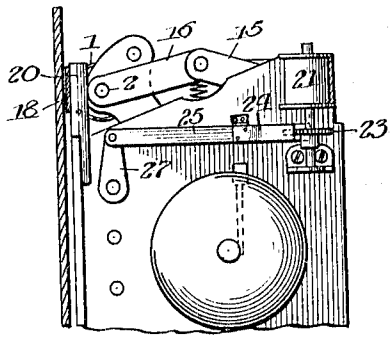
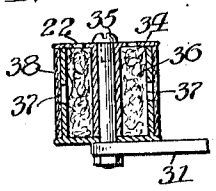


Fig. 4.



Witnesses
Chas. Wenniel
Hazel Jones

Inventor
William F. Straub
by May W Zabel
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM F. STRAUB, OF CHICAGO, ILLINOIS, ASSIGNOR TO ELECTRIC TIME RECORDER COMPANY, OF CHICAGO, ILLINOIS.

INKING SYSTEM.

1,116,155. Specification of Letters Patent. Patented Nov. 3, 1914.

Application filed December 9, 1912. Serial No. 735,719.

To all whom it may concern:

Be it known that I, WILLIAM F. STRAUB, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Inking Systems, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to a type inking system and is more particularly related to that character of system in which a ribbon or other continuous ink feeding mechanism is used to supply ink to type or other stamping elements.

More particularly my invention concerns itself with an endless feeding mechanism for such a ribbon, the endless ribbon traveling continuously and being supplied at some place along its travel with a continuous supply of ink.

My invention is of particular utility for instance in connection with time recorders or similar mechanism which may be periodically actuated and the periodical actuation of this mechanism at the same time periodically actuates the ribbon aforesaid.

I will explain my invention more in detail by reference to the accompanying drawing illustrating the same, in which—

Figure 1 is a longitudinal sectional view of a time recorder embodying my invention; Fig. 2 is a top view of the inking apparatus with its associated parts and driving mechanism; Fig. 3 is a side view of a portion of the apparatus illustrated in Fig. 1 looking at the same from the opposite side to that of Fig. 1; Fig. 4 is a detail view of the ink supplying element, and Fig. 5 is a top view of the electromagnetic driving mechanism.

My improved inking system is adapted to supply ink to suitable type wheels 1, which type wheels are mounted on a shaft 2, which shaft through the interposition of bevel gears 3, 4 is driven by a shaft 5. This shaft 5 has a pinion 6 driven by the gear 7, which gear is directly connected with an armature 8, electromagnetically driven by the electromagnets 9, 10 and 11. The electromagnets 9, 10 and 11 are adapted to be energized in succession one after another, thereby to rotate the armature 8, which armature for this purpose is provided with a plurality of projections 12. The armature is mounted upon a rotatable shaft 13 and a projection 12 of said armature is always nearest to that particular electromagnet which is next to be energized, not counting that electromagnet which at that same time happens to be energized and over which such an armature projection 12 is for the time stationed. A lever 14 when actuated is designed through the agency of toggle levers 15 and 16 and the controlling levers 17, 17 to actuate the type wheels 1, all as set forth more particularly in my copending application Serial No. 735,718, filed Dec. 9, 1912. A ribbon 18 for inking purposes is adapted to travel past the face of the type wheels, rollers 19 and 20 being provided to thus guide the ribbon in front of said type wheels. This ribbon 18 is endless and also travels around the driving roll 21 and the combined tension and inking roll 22. The driving roll has a ratchet wheel 23 and a holding pawl 24. A driving pawl 25 which is normally held in engagement with the ratchet 23 by the spring 26 is periodically actuated by the crank 27 to thus periodically rotate the roll 21 thereby to impart a periodic movement to the ribbon 18 whenever the lever 14 is actuated. This crank 27 is mounted upon a shaft 28 which shaft carries at its opposite extremity a lever 29, which lever by having its free extremity between the pins 30, 30 is moved whenever said lever 14 is operated to actuate the type wheels. Thus each actuation of the lever 14 moves the ribbon 18 a predetermined distance. The roll 22 is mounted on a bracket 31 pivoted at 32 and held in a position to establish a certain tension in the ribbon 18 by means of the spring 33. This roll 22 besides placing the ribbon under tension is also designed to supply the necessary ink to this endless ribbon and for this purpose this roll 22 is hollow and is provided with a cover 34 held in place by means of the screw 35. Within this cup-shaped roll I place suitable material which may retain the ink such as the material 36 consisting of wool or cotton or other fibrous material. The walls of the roll 22 are provided with apertures 37 through which ink may travel outwardly and saturate the piece of felt 38, which felt entirely encircles the roll 22. The inking ribbon 18 travels about this felt 38 and from it receives the necessary ink to maintain said ribbon in proper condition to make an impression when the same is pressed against

any suitable card or other impression receiver by the type wheels 1. It will thus be seen that an endlessly fed inking device is provided suitably periodically actuated by the actuating lever of the apparatus so that this ribbon need not be uncoiled, which would be the case if it were wound from one roller to another.

Having thus described one form which my invention may take, what I claim as new and desire to secure by Letters Patent is:

A reservoir roll adapted to supply ink to a ribbon comprising a cylindrical metallic ink holder, a plurality of openings in the side wall of said holder to permit ink to pass therethrough and engage a ribbon wound about said roll, fibrous ink retaining material within the ink chamber of said roll, a cap for said holder having a centrally located cylindrical extension whereby said cylindrical extension and the cylindrical wall of said holder form a carrier for the ink, and a pivot within said central cylindrical extension.

In witness whereof, I hereunto subscribe my name this 29th day of November, A. D. 1912.

WILLIAM F. STRAUB.

Witnesses:
O. M. WERMICH,
HAZEL ANN JONES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."