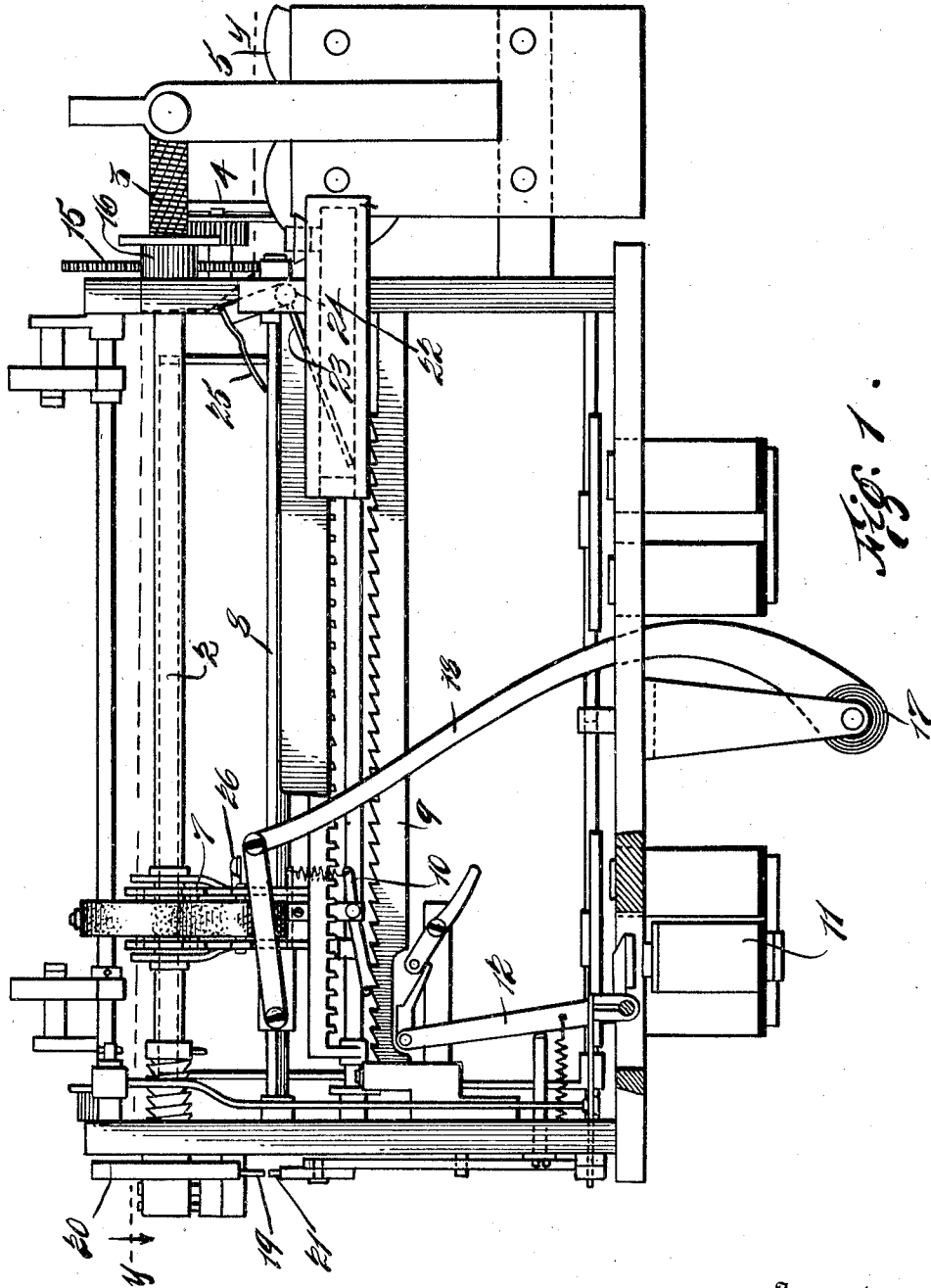


1,330,787.

G. S. CONGER.
INKING MECHANISM.
APPLICATION FILED FEB. 19, 1919.

Patented Feb. 17, 1920.
2 SHEETS—SHEET 1.

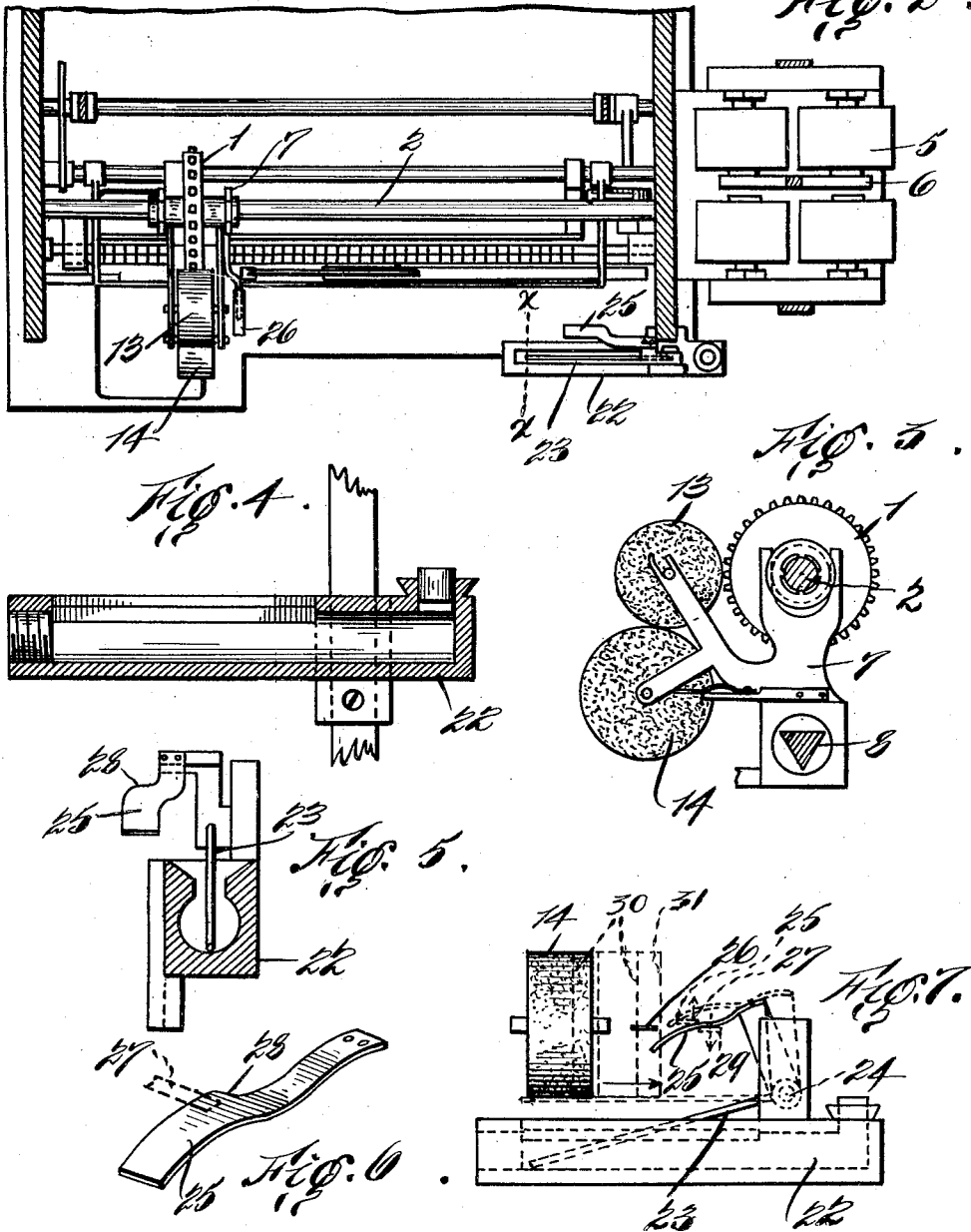


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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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INKING MECHANISM.

1,330,787.

Specification of Letters Patent.

Patented Feb. 17, 1920.

Application filed February 19, 1919. Serial No. 277,958.

To all whom it may concern:

Be it known that I, GEORGE S. CONGER, a citizen of the United States, residing at New York city, N. Y., have invented certain new and useful Improvements in Inking Mechanisms, of which the following is a clear, full, and exact description.

My invention relates to an inking mechanism particularly adapted for use on printing telegraph machines, in which the matter is written on a broad page as distinguished from a narrow tape of paper. My object is to provide an improved and simplified inking construction.

In the preferred form of my invention shown in the drawings, Figure 1 is a front elevation of one type of page printing machines with my improvement thereon;

Fig. 2 is a top plan view in section on the line Y of Fig. 1;

Fig. 3 is a side elevation of the type-wheel, inking rollers and carriage;

Fig. 4 is a detail of the ink reservoir;

Fig. 5 is an enlarged section thereof on the line X—X of Fig. 2, showing also the wiper;

Fig. 6 is a detail view of the wiper spring; and

Fig. 7 is an enlarged view of the ink reservoir and wiper showing also typical positions of the inking roller.

The invention is in the drawings shown as applied to my page-printing telegraph receiver illustrated in United States Letters Patent #1,178,215 dated April 4, 1916. In the drawings there is provided a type-wheel 1 rotated by a type-wheel shaft 2 on which it is longitudinally slidable, being connected thereto by a spline or similar connection. This shaft is put under constant stress by a coil spring 3 operated by winding mechanism 4 and released by the magnets 5 and escapement 6.

The type-wheel is moved along to the right by a carriage 7 which slides along a squared shaft 8 and is moved step-by-step by a double rack and pawl mechanism indicated by 9, 10, the movable rack being actuated by the magnet 11 and lever 12, for letter-spacing across the page of paper, not shown. Resting loosely against the type-wheel is an inking roller 13, and an additional inking roller 14 may be provided if desired. The circuits and connections (not

shown) may be as illustrated and described in my former patent above mentioned. The type-wheel is rotated to present the proper letter and print it, and the carriage and type-wheel move to the next letter-space as described in said patent.

As in said patent, when it is desired to make a new line space, the carriage is released from connection with the racks and allowed to return to the left through the impulse of a spring 17 exerting its force on the lever connection 18 to the carriage. The carriage is released the same as in my prior patent, by rotating the type-wheel to the carriage-release position indicated in Fig. 1, in which the pin 19 mounted on a disk 20 fixed to shaft 2 is in position to be struck by the projection 21. This throws the pawl 10 out of engagement with the racks and allows the carriage to move to the left, as described in said patent. This general type of carriage-releasing mechanism is common in the prior art and its operation will be evident to a mechanic. When this occurs, it is obvious that the type-wheel is held from rotation by the escapement. The operation is evident from my prior patent and it is not thought necessary to describe it more fully herein.

It is desirable to apply ink to the inking roller at times, in order to keep it supplied with ink. Various mechanisms have been devised for this purpose. In the Burry Patent No. 680,693, an ink reservoir is provided with a capillary brush standing in the path of travel of the inking roller so that each time the roller passes across it, ink is applied to the roller. This construction, however, is open to many objections which my construction is designed to avoid. In Burry, the ink is applied twice in writing each line, often resulting in too much ink being applied; also on cold days or when the machine has not been in use for some time, the ink becomes gummed in the brush and is not applied properly or at all. These and other objections I have overcome.

In the preferred embodiment of my invention, I provide an ink reservoir 22 and an ink-supplying device, which may be in the form of a wiper 23 normally dipping into the ink in the reservoir, projecting therein through a slot at the top, as illustrated in Figs. 4 and 5. This wiper is pivoted at 24 and is raised at suitable times into contact

with the type-wheel, as indicated in dotted lines in Fig. 7. This wiper may be actuated in various ways, but in this embodiment of my invention I have provided a lifting device in the form of a cam-shaped spring 25 which may be actuated at the will of the operator. This may be done in various ways, but in the present embodiment I have provided a spring finger 26 on the carriage. Normally, the parts stand as shown in full lines in Figs. 1 and 7. The spring lifter 26 is shown positioned substantially at the extreme limit of travel of the carriage.

As the carriage moves to the right, the finger 26 engages the lifter as shown in dotted lines at 27, the finger being slightly bent upward by the pressure. At the next movement given to the carriage, the end of the finger reaches the cut-away portion 28 of the lifter and snaps down below it, as indicated in dotted lines at 27 in Fig. 7. If the carriage is then released and allowed to move to the left, the finger passes underneath the spring lifter and raises it to the position shown in dotted lines in Fig. 7, raising the ink-supplying device or wiper into engagement with the inking roller as the latter moves to the left.

It will be observed that in this form of the invention, the ink is applied at one point in the travel of the carriage and during its travel in one direction only, and only when the carriage-release mechanism is in the carriage-release position. The type-wheel is at this time held from rotation.

I have positioned the ink-supplying mechanism so that the ink is supplied to the roller only after the type-wheel has reached substantially the end of its travel allowed by the mechanism. In the ordinary use of such machines, the operator does not write to the extreme limit of travel possible for the type-wheel, but stops his writing several letter-spaces short of it. There are therefore several, usually at least three or four, normally unused letter-spaces at the right, and I have utilized these to put the inking mechanism under control of the operator so that the ink will be applied only when he desires it and by giving one of the parts controlled by the operator, such as the carriage an extraordinary movement, preferably to the limit of its travel possible. In Fig. 7 I have illustrated the roller 14 as in the second space from the limit of its travel. The first space from the limit of its travel is indicated by the lines 30 at which the finger 26 is in the position indicated by 27. The line 31 indicates the position of the type-wheel at the extreme limit of its travel when the finger snaps down into the position indicated in dotted lines at 29 at the time when the carriage is released. Of course this exact mode of operation is not essential to my invention. But as illustrated and preferred, the operator

may write in the usual way and with the usual length of line without applying ink to the roller. If he desires to ink, all he needs to do is to move his type-wheel to the normally unused spaces at the right, such as the extreme limit of travel illustrated, and then release the carriage. This will apply the ink automatically. The ink is therefore not applied every time a line is written but is under control of the operator so that he can ink as often or as seldom as he desires, thus obviating many of the objections to the inking devices of the prior art.

I am aware that my invention is not limited to the exact form or arrangement shown, but is susceptible of many modifications and I therefore do not limit myself to the construction herein illustrated and described.

What I claim is:

1. In a machine of the character described, in combination, a type-wheel and means to rotate the same, a carriage therefor and means to move the same laterally for letter-spacing, an inking roller on the carriage, an ink-supplying device and means arranged to move the same into engagement with said roller through an abnormal movement of a part controlled by the operator.
2. In a machine of the character described, in combination, a type-wheel and means to rotate the same, a carriage therefor and means to move the same laterally for letter-spacing, an inking roller on the carriage, an ink-supplying device and means arranged to move the same into engagement with said roller during the travel of said carriage in one direction only.
3. In a machine of the character described, in combination, a type-wheel and means to rotate the same, a carriage therefor and means to move the same laterally for letter-spacing, an inking roller on the carriage, carriage-releasing mechanism, an ink-supplying device and means arranged to move the same into engagement with said roller only when said carriage-releasing mechanism is in the carriage-releasing position.
4. In a machine of the character described, in combination, a type-wheel and means to rotate the same, a carriage therefor and means to move the same laterally for letter-spacing, an inking roller on the carriage, an ink-supplying device and means arranged to move the same into engagement with said roller only while said type-wheel is held from rotation.
5. In a machine of the character described, in combination, a type-wheel and means to rotate the same, a carriage therefor and means to move the same laterally for letter-spacing, an inking roller on the carriage, an ink reservoir, an ink carrier dipping therein, and means inoperative during the normal operation of the machine but under control

of the operator and arranged to move the carrier out of the reservoir and into contact with said roller.

6. In a machine of the character described, 5 in combination, a type-wheel and means to rotate the same, a carriage therefor and means to move the same laterally for letter-spacing, an inking roller on the carriage, an ink-supplying device and means operable 10 only after said type-wheel has reached substantially the end of its travel and arranged to move said ink-supplying device into engagement with said roller.

7. In a machine of the character described, 15 in combination, a type-wheel and means to rotate the same, a carriage therefor and means to move the same laterally for letter-spacing, an inking roller on the carriage, an ink-supplying device under control of the

operator and arranged to supply ink to the 20 roller only when said type-wheel is given an extraordinary movement to the right.

8. In a machine of the character described, in combination, a type-wheel, an inking 25 roller, a carriage and means to move the same laterally for letter-spacing, an ink-supplying device comprising an ink reservoir, an ink-carrier dipping therein and means to move the same out of said reservoir into contact with said roller and comprising a mov- 30 able portion adapted to be engaged by a part of the mechanism under control of the operator.

Signed at New York city, N. Y., this 11th day of February, 1919.

GEORGE S. CONGER.

Witness:

E. R. NEWELL.