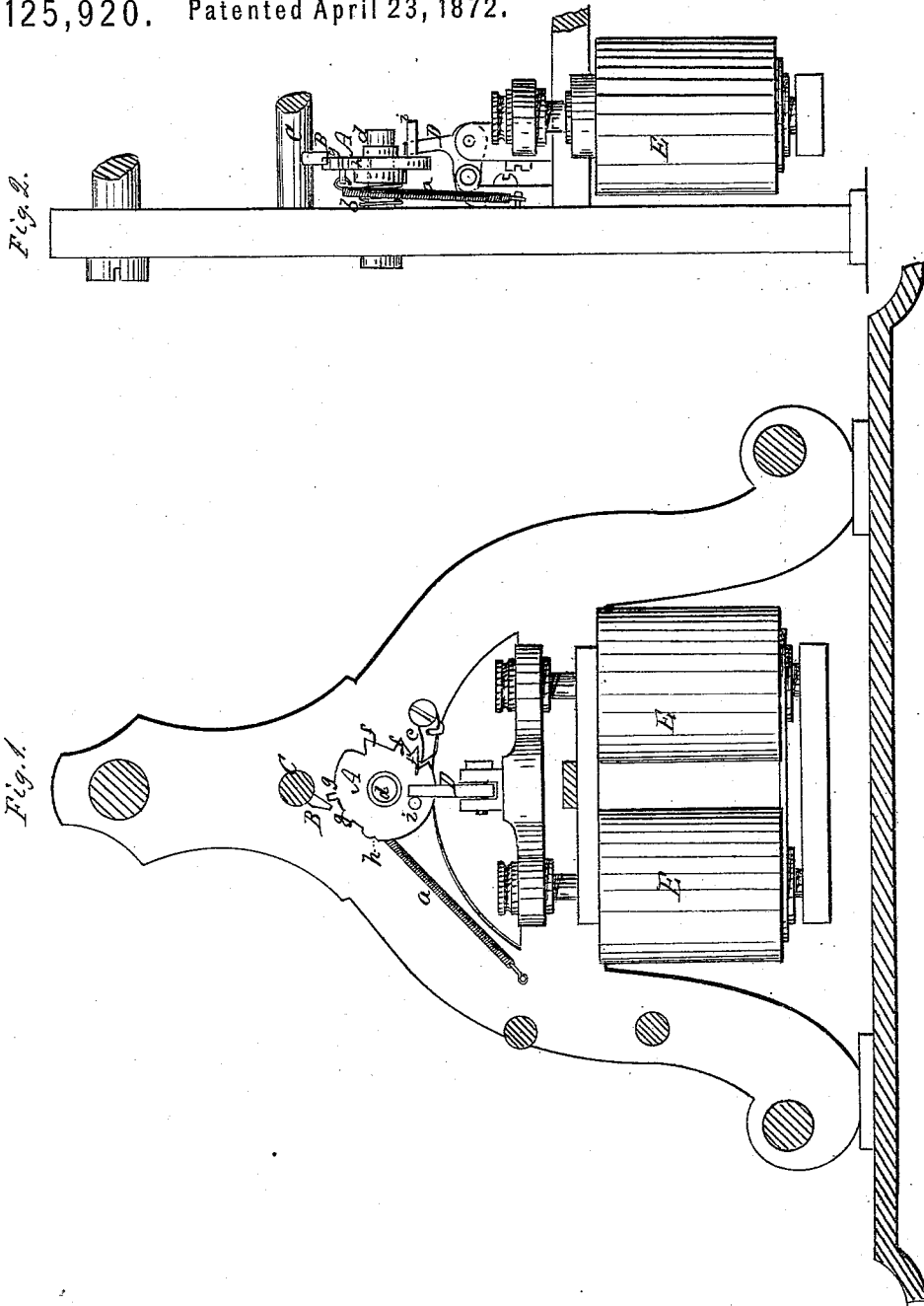


M. F. WESSMANN.
Improvement in Unison-Stop for Printing-Telegraphs.
No. 125,920. Patented April 23, 1872.



Witnesses,
E. M. Gallaher,
E. M. Heau

Inventor,
Martin F. Wessmann,
By his attorney,
J. S. Brown

UNITED STATES PATENT OFFICE.

MARTIN F. WESSMANN, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN UNISON STOPS FOR PRINTING-TELEGRAPHS.

Specification forming part of Letters Patent No. 125,920, dated April 23, 1872.

To all whom it may concern:

Be it known that I, MARTIN FERDINAND WESSMANN, of Brooklyn, in the county of Kings and State of New York, have invented an Improved Unison Device for Telegraph-Printing Instruments; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing making part of this specification—

Figure 1 being a view in elevation of the improved unison device, together with so much of the printing-instrument as is necessary to show the connection and operation of the device; Fig. 2, an elevation thereof, showing a view at right angles to the view in Fig. 1.

Like letters designate corresponding parts in both the figures.

The essential parts composing the unison device, as represented, are a disk or plate, A, a cog or projection, B, on the shaft C of the type-wheel, and a lever, D, or its equivalent, operated by the printing-magnet, together with a counter spring or springs *a b*, to reverse or undo the movements of the disk produced by the projection and lever, and a detent or pawl, *c*, which retains the movement of the disk, produced by the projection B, until the release thereof and reversal of the said movement, all substantially as herein set forth. The disk, plate, or other form of piece A is mounted on a pin or stud, *d*, of the instrument frame in any convenient position near the shaft C of the type-wheel, either inside or outside of the side piece of the frame. It has both a partial turning movement and a lateral movement on the pin or stud, the lateral movement being for the purpose of disengaging it from the cog B. The partial turning movement of the disk is produced by the projection or cog B of the type-wheel shaft in the revolution of the type-wheel, and its lateral movement is produced by the lever or its equivalent D in the upward movement of the armature of the printing-magnet E. A side spring, *a*, serves to reverse the turning movement of the disk produced by the said projection, and a coiled spring, *b*, around the pin *d* serves to reverse the lateral movement thereof produced by the lever D; or a coiled spring like *b* on the pin *d*, arranged so as to have both a longitudinal and torsional action, may answer both purposes.

The spring detent *c* holds the disk in its step-by-step movement produced by the projection B, the disk having three or more ratchet-teeth *f f* on its adjacent edge to receive its detent. The step-by-step turning movement is effected by the projection B striking cog projections *g g* in the proper position on the edge of the disk, moving it one cog or step each time the projection comes round in the revolutions of the type-wheel; and when both or all of the cogs have been moved along thereby the next time the projection comes round it strikes a point, *h*, on the disk where there is little or no notch or depression in the edge of the disk, and is prevented from further movement thereby, so that the type-wheel is stopped. The projection B is so located on the type-wheel shaft of each instrument in the circuit as to stop the type-wheel when its zero or period type is in position for printing, or any other desired position, but is uniform with all the instruments in the same electric circuit at least. A pin, *i*, on the face of the disk serves to prevent the disk from turning back further than the position it is required to return to by striking the lever D, or any other suitable stop.

The operation of the unison device is based on the principle that the revolutions of the type-wheel will bring the disk into a position to stop its further turning, if continued long enough, and that the operation of the printing-magnet releases the disk from the projection B, and again sets the type-wheel free to move.

In order to stop the type-wheels of all the instruments the transmitter must make at least two whole revolutions, and part or all of a third revolution, without, in the meantime, operating the lever D by the printing-magnet, in order to lock the disks of all the instruments. Hence, if the index of the transmitter is turned three revolutions at any time without operating the printing-magnet, all the instruments in the circuit will be brought into unison; then by making a single movement of the printing-key, all the type-wheels are set free by the lever D, in each at the same moment, disengaging its disk from the projection B. Ordinarily there is never more than a whole single revolution of the transmitter-index before the printing-key is moved to print a let-

ter or character, and at every time this is done it sets all the disks free, whether it has moved forward one notch or more, so that this unison device never interferes with the ordinary operation of the instrument.

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

1. A unison device for printing-telegraph instruments, brought directly into action by the revolution of a single cog or projection, B, on the type-wheel shaft, substantially as herein set forth.

2. The unison device herein described, consisting of the disk A, which has the movements specified, produced by the cog or projection B on the type-wheel shaft, and the lever D or its equivalent, operated by the printing-magnet, in connection with the counter-springs *a b* and detent *c*, substantially as herein set forth.

MARTIN F. WESSMANN.

Witnesses:

J. S. BROWN,

ROB. H. GALLAHER, Jr.