

(No Model.)

C. STAHLBERG.
TIME STAMP.

No. 429,101.

Patented May 27, 1890.

Fig. 1.

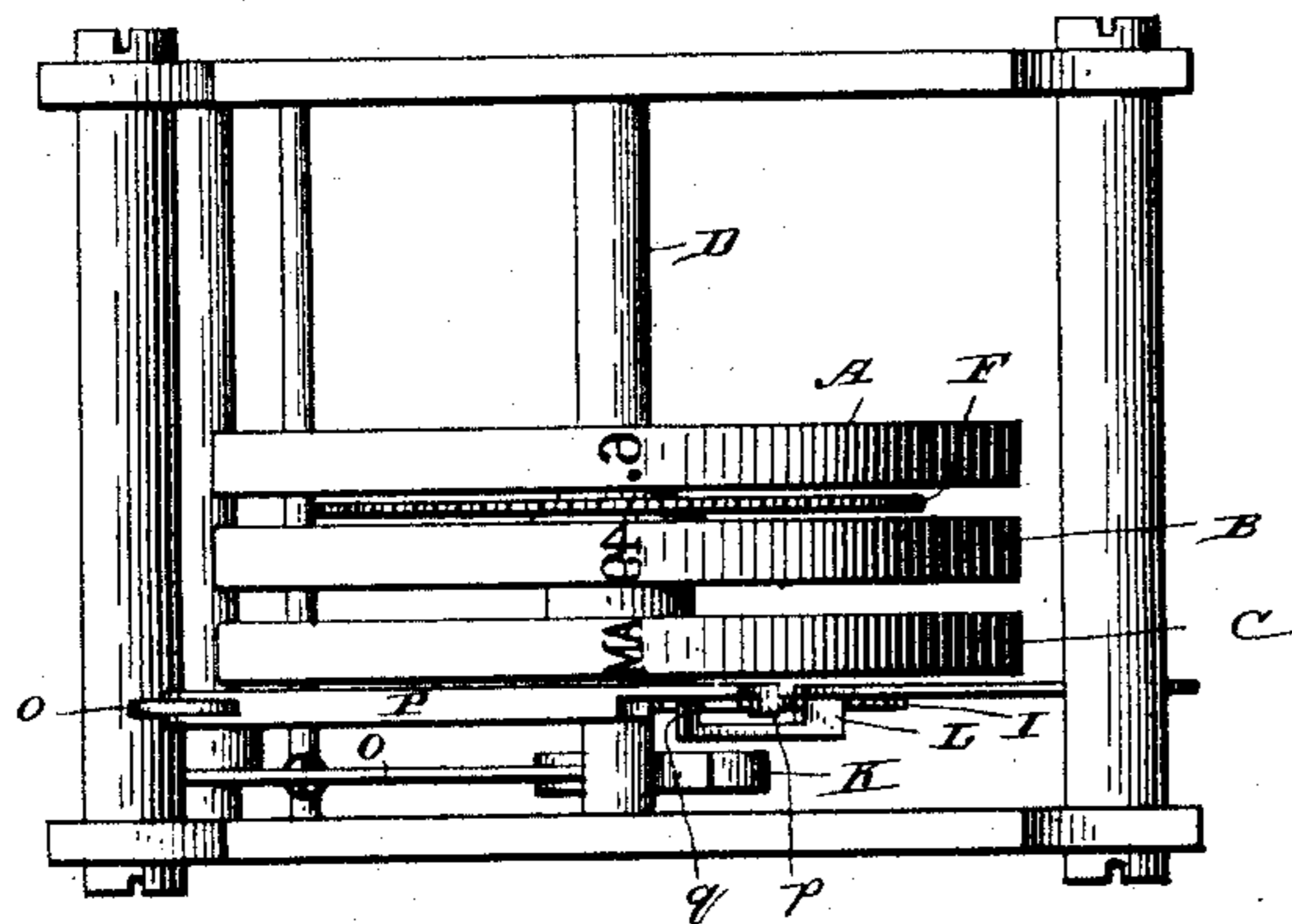


Fig. 2.

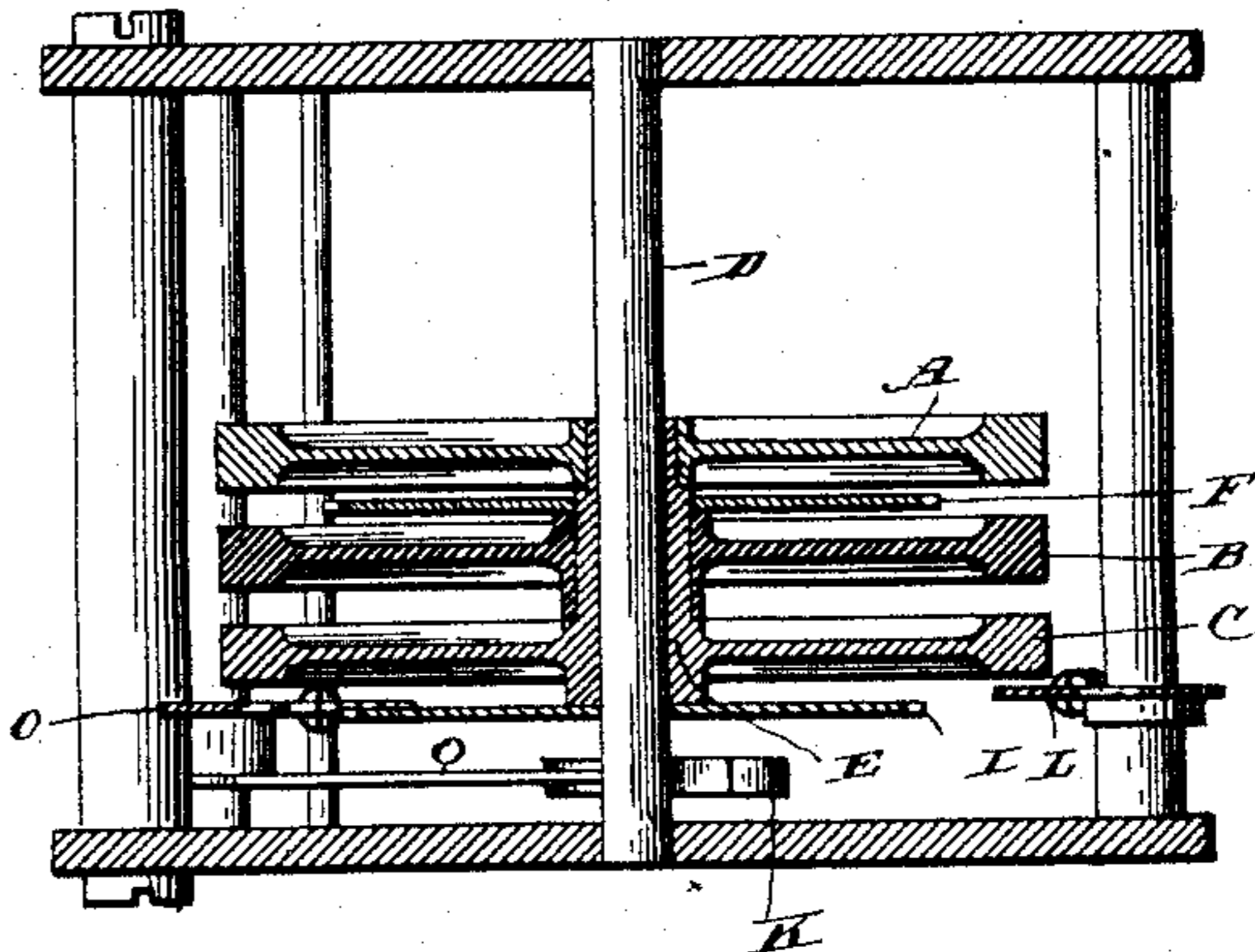


Fig. 3.

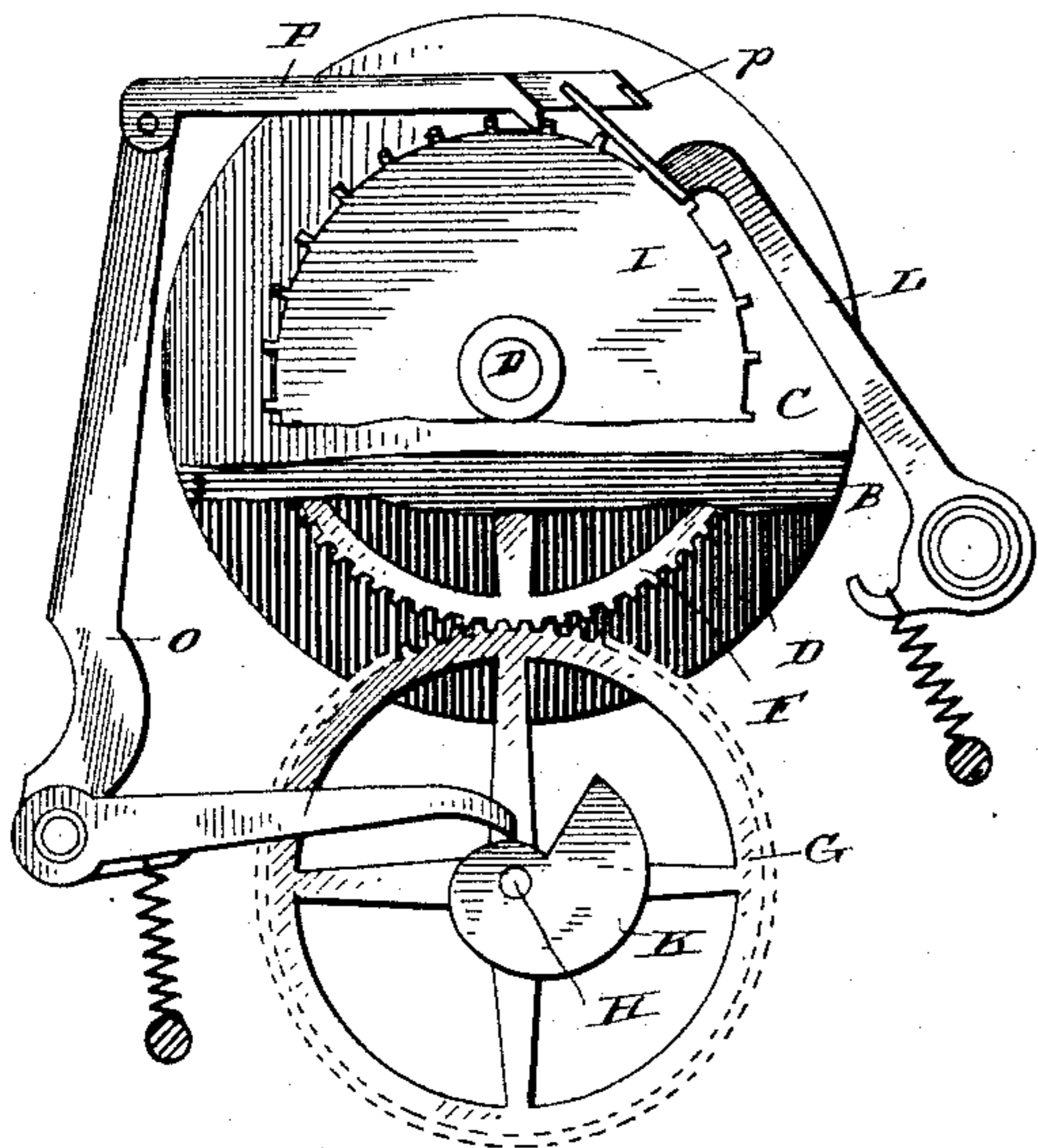


Fig. 4.

Oct. 7, 6.49 A.M. 1889.

Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES STAHLBERG, OF BROOKLYN, NEW YORK.

TIME-STAMP.

SPECIFICATION forming part of Letters Patent No. 429,101, dated May 27, 1890.

Original application filed March 19, 1889, Serial No. 303,910. Divided and this application filed January 9, 1890. Serial No. 336,354. (No model.)

To all whom it may concern:

Be it known that I, CHARLES STAHLBERG, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Time-Stamped; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

This invention relates to instruments by means of which the current time and date, together with other names and characters, may be printed on documents, and in which are embodied a series of type-wheels with mechanism to automatically set them, and a clock-movement to run the same, all as fully set forth and described in my Patent, No. 424,369, granted March 25, 1890, of which patent the present case is in a division.

The object of this invention is to so construct and arrange the wheels for printing the hour, minute, and meridian that they will read in their proper order with the minute following the hour and the meridian following the minute, thus presenting a good appearance and enabling the time to be read more easily and certainly; to which ends it consists, broadly stated, in mounting the hour and meridian wheels on a common shaft, connecting them to move simultaneously, and mounting the minute-wheel between them. Further, it consists in journaling the minute-wheel on the hub of the hour and meridian wheels in the space between them, and, finally, it consists in certain novel details of construction and combinations and arrangements of parts, all as will be hereinafter described, and pointed out particularly in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a top plan view of a portion of a time-stamp constructed in accordance with my invention and showing the hour, meridian, and minute wheels. Fig. 2 is a horizontal section through the center of the same. Fig. 3 is a vertical section taken in front of the meridian-wheel, with part broken away to show the minute and hour wheels. Fig. 4 illustrates the rela-

tive order of the printing done by a stamp constructed in accordance with my invention.

Similar letters of reference in the several figures indicate the same parts.

I have not deemed it necessary to illustrate or describe the clock or year, day, and month wheel operating mechanisms herein, as the same are fully shown and described in my before-mentioned patent, to which reference is hereby made.

Referring to the accompanying drawings, it will be seen that the hour, minute, and meridian wheels A, B, and C, respectively, are mounted on a common shaft D, which may be journaled in any suitable frame-work and preferably, also, carries the month, day, and year wheels. The hour and meridian wheels are located, respectively, to the right and left of the minute-wheel, and are connected for simultaneous movement, each hour indice or type having a corresponding meridian indice or type opposite the same. The connection between the said hour and meridian wheels is preferably formed by mounting them on a common hub E, having an intermediate bearing or journal for the hub of the minute-wheel, which latter is thereby permitted to have a free rotation independently of the hour and meridian wheels, motion being imparted thereto by means of the gear-wheel F, mounted thereon at one side and meshing with the gear-wheel G on the actuating-shaft H. This shaft H is turned by the clock-movement at intervals corresponding to the divisions of time to be shown by the minute-wheel, the shaft-actuating mechanism or connection between the same being of any desired kind well known to those skilled in the art, or, preferably, as shown in my before-mentioned patent.

The meridian and hour wheels are practically one wheel, and carry the type for the twenty-four hours of the day, a proper distance between said wheels and the minute-wheel being provided to accommodate the actuating levers and pawls to be now described.

A toothed wheel I, having twenty-four straight-sided teeth, is fastened to the hub of

the meridian-wheel, and a pawl L enters between the teeth of wheel I and locks the same from turning in either direction. On the shaft H, at one side of the gear-wheel G, is mounted a cam K, which actuates a bell-crank lever O, having loosely pivoted thereto at its upper end a pawl P, which during its forward movement turns the wheel I and the hour and meridian wheels connected thereto. This pawl P carries an extension with a projection *p* at its end, which during its forward movement engages a similar extension and projection on pawl L. The projection *p* is inclined on its front face and the projection *q* on pawl L is correspondingly inclined, said projections being so adjusted that *p* in its forward movement will enter under the projection *q* and cause the latter to rise on the inclined plane of *p*, lifting the locking-pawl out of engagement momentarily and permitting the wheel to be rotated one space. The locking-pawl L firmly holds the type-wheel and prevents it from being moved in either direction, thus giving a reliable tally at all times, making the stamp particularly valuable in connection with a watchman's time-detector. With this arrangement it will be seen from and inspection of Fig. 4 that the relative order of the printing is, first, the hour; second, the minute, and, third, the meridian, as shown, the time being October 7, 6.49 a. m., 1889.

It is obvious that any well-known mechanical expedient for causing the simultaneous movement of the hour and meridian wheels may be employed, and therefore I do not wish to be understood as limiting myself to the exact construction shown.

Having thus described my invention, what I claim as new is—

1. In a time-stamp, the combination, with the hour and meridian wheels mounted on a common shaft and connected together to move simultaneously, of the minute-wheel journaled between said hour and meridian wheels, substantially as described.

2. In a time-stamp, the combination, with the hour and meridian wheels mounted on a common hub, of the minute-wheel journaled on the hub of the said hour and meridian wheels in the space between the latter.

3. In a time-stamp, the combination, with the hour and meridian wheels and a minute-wheel journaled between the same, of the gear-wheel connected to said minute-wheel, the actuating-shaft having the wheel meshing with said gear-wheel, the cam on said shaft, and the lever and pawl actuated thereby for turning the hour and meridian wheels, substantially as described.

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Witnesses:

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