UNITED STATES PATENT OFFICE.

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TIME, DATE, OR AMOUNT STAMP.

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To all whom it may concern:

Be it known that I, GUSTAV GEHRING, a subject of the German Emperor, residing at Hildburghausen, Duchy of Saxe-Meiningen, Germany, have invented certain new and useful Improvements in or Relating to Time, Date, or Amount Stamps, of which the following is a specification.

My invention relates to improvements in or relating to time, date or amount stamps. Devices for marking payments effected, that is to say, for producing an impression replacing a postage stamp or any other value stamp, are well known. In these devices, the operating parts are ordinarily so arranged that the insertion of a coin effects the actuation of a coin lever which, in turn releases a clockwork. The stamp employed in such device is normally held by the action of a spring in its highest position, until caused to descend by the action of a cam or like part. The rotation of the stamp itself is generally effected by a separate manual operation of a locking bar or locking head which is forced into the device by the user after the insertion of the coin, and in many instances the manual operation of the releasing bar is also necessary. Devices of that kind are, however, objectionable in several respects, notably in that the stamp is guided in an unsatisfactory and unreliable manner, and that the impression obtained is, as a rule, indistinct, as the stamp itself is shifted comparatively slowly by the cam, owing to the opposition of the above-mentioned spring. Finally, it may be stated that most known devices require a not inconsiderable time to come to rest after they have been used, as the stamp can only reach its highest position again after the cam has completed the whole of its travel.

All of the above disadvantages are obviated by the improved device hereinafter described, the principal features of which are as follows: The stamp is normally held in its highest position by a toothed disk and is automatically released by the latter after a coin has been inserted, the insertion of the coin automatically effecting the starting of a previously locked clockwork. When so released, the stamp is depressed by a comparatively powerful spring against the article to be stamped, whereupon, as soon as this operation has been completed, the toothed disk again raises the stamp until it reaches its highest position, and the whole device is again locked. At the same time as soon as the clockwork starts, a recording device consisting of two rollers and a record strip, as well as of a striking lever arranged in the path of the coin, is operated, so that the cutter provided upon the lever is forced by the coin, which subsequently falls into a coin receptacle, against the record strip, thus perforating the latter. This recording device is of great importance for automatic stamping apparatus, as it serves as a check on the official charged with emptying the same, and renders it possible to determine whether he has delivered all the coins inserted. In the present apparatus, it is merely necessary to insert a coin in order to start the device, while, on the contrary, the connecting rods generally used and even indispensable in most devices now in use are completely done away with. Moreover, the spring effects a very powerful blow of the stamp, so that its impression is always sharp and clear, which is not the case in devices hitherto known and used for the same purpose, on account of the slow downward movement of the stamp against the action of its controlling spring.

The accompanying drawing shows a front elevation of a structural embodiment of the new device for marking payments and the like applied to a letter-box.

In the said construction, 1 is a suitably shaped chute which guides the coin inserted into the device to a double armed lever 3, pivotally supported at 2 and normally held by a balance weight 4 in the position shown in the drawing, in which position the end that carries the balance weight engages in one of the recesses 5 of a disk 6. On the 9 spindle 7 of the disk 6 is mounted a gear 8 meshing with the gear 9 of a suitable clockwork, so that the clockwork is, therefore, normally locked by the lever 3. A gear 10 of the clockwork meshes with a small pinion 11 keyed to the spindle 12 of a toothed disk 13, the teeth of which engage under a projection 14 of a vertical rod 15. The rod 15 is operated by a spring 16 and carries at its lower end a date stamp of any desired construction, the die being removable and interchangeable. Below the lever 3 there is arranged another lever 18 which is pivotally mounted at 17, in such a manner that it is struck by the coin which drops from the receiver 19 in the end of the lever 3 and passes through the guide chute 19. The
lever 3 upon being struck by the coin is
oscillated about its pivot 17, a pin or cutter
20 provided at the opposite end of the lever
striking a recording strip 21 and marking
the same. The recording strip 21 travels
about rollers 22 and 23, one of which is
driven, by means of suitable intermediate
gears 24, 25, from the clockwork when the
latter is in motion, so that the markings
produced consequent to the successive move-
ments of the coins through the apparatus
are spaced at suitable intervals in the record-
ing strip.

The operation of this device is as follows:
The clockwork 8, 9, 10, owing to the engage-
ment of the end of the lever 3 in one of the
recesses 5 of the disk 6, is normally locked.
When a coin is introduced into a suitable
slot of the letter-box, it falls first on the lever
3 and thus produces a descent of the arm
provided with the receiver 3a, and at the
same time the opposite arm of the lever is
raised, to disengage the wheel 6 and, in con-
sequence, permit the clockwork to become
operative. In that way the toothed disk 13
is rotated in such a manner that the tooth
which engages under the projection 14 of
the stamp rod 15 is ultimately disengaged
from said projection, whereupon the spring
16 operates the stamp 15a to make an im-
pression upon the letter or post card which,
it will be understood, has been introduced
into the slot in the letter-box and rests on
the table 27. In the meantime, the record-
ing strip 21 has been also moved by the
clockwork, so that the previous marking is
no longer opposite the pin or cutter 20 on the
lever 18. The coin passes through the guide
chute 19, and falls upon the receiver 15a pro-
vided upon one end of the lever 18, depress-
ing that end and, at the same time, raising
the opposite end, upon which the cutter is
mounted, against the recording strip 21,
whereby the latter is again marked. Finally,
the coin falls from the receiver 18a onto
the guide plate 28 and rolls down the same
into a receptacle 29. The clockwork, which
is still in operation, will then rotate the
toothed disk 13, so that the succeeding tooth
will engage under the projection 14 of the
depressed stamp rod 15 and lift the latter
with the stamp 15a. During that time, the
balance weight 4 on the lever 3 will ride
along the periphery of disk 6 until the next
recess 5 is reached, whereupon the clockwork
will be stopped or locked. As the speed of
rotation of the disk 6 and of the toothed
disk 13 is the same, this takes place when the
corresponding tooth of the toothed disk 13
has moved the stamp rod back to its original
position, so that the device can again be op-
erated after another coin has been inserted.

While the device has been shown and de-
dscribed as applied to a letter-box for the
purposes specified, it can obviously be em-
ployed in many other connections without
departing from its fundamental principle.

I claim as my invention:

In an apparatus of the character specified,
the combination, with a clockwork and a
movable member for controlling the opera-
tion thereof; of a stamping rod provided
with a stamp; an operating spring asso-
ciated with said rod; a member for raising
said rod against the action of said spring;
connections between said member and said
clockwork for operating the former from
the latter; a recorder comprising a movable
record strip and a member for marking the
same; and driving connections between said
clockwork and said record strip.

In testimony whereof I have hereunto set
my hand in presence of two subscribing wit-
nesses.

GUSTAV GEHRING.

Witnesses:
M. C. DILLINGHAM,
I. HINZE.

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