(No Model.)

# L. K. SCOTFORD.

## DATING DEVICE FOR HAND STAMPS.

No. 401,519. Patented Apr. 16, 1889.

Fig 1.—

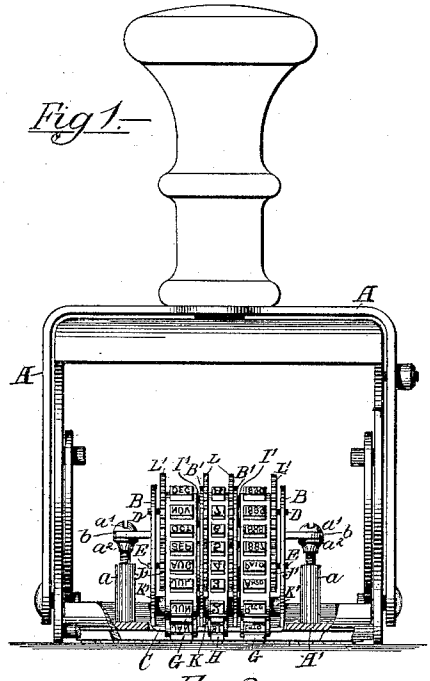


Fig 2.—

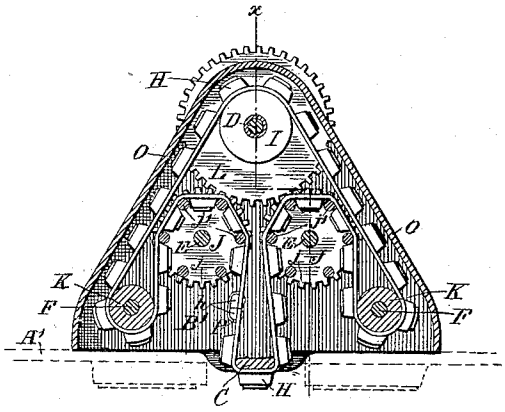


Fig 3.—

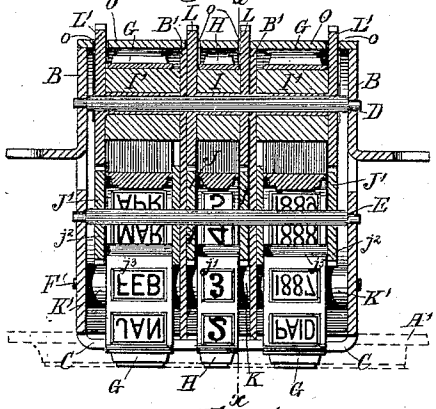


Fig 4.—

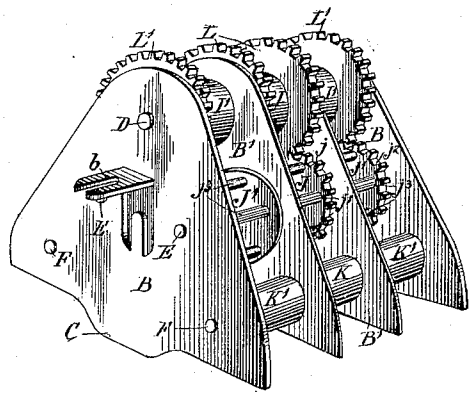


Fig 5.—

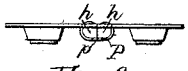


Fig 6.—

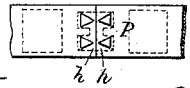
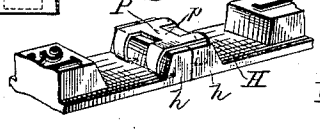


Fig 7.—



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# UNITED STATES PATENT OFFICE.

LOUIS K. SCOTFORD, OF CHICAGO, ILLINOIS.

## DATING DEVICE FOR HAND-STAMPS.

SPECIFICATION forming part of Letters Patent No. 401,519, dated April 16, 1889.

Application filed August 18, 1887. Serial No. 246,615. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS K. SCOTFORD, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Dating Devices for Hand-Stamps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in hand-stamps of that class which comprise one or more flexible type-bands mounted upon guides or rollers in such manner that the band or bands may be moved to bring a certain character or combination of characters into position for printing.

The invention consists in the matters hereinafter described, and pointed out in the appended claims.

In a prior application for patent, Serial No. 216,500, filed by me October 18, 1886, is shown and described a hand-stamp provided with a dating device having three separate bands, including one long band, which contains all the figures necessary for indicating the days of the month, which long band is placed over a guide or roller which supports it at the point of printing, and a plurality of other guides or rollers grouped within a small space adjacent to the guide or roller above mentioned. As shown in the said application, the band is trained over a series of smooth rollers or pulleys, so that the band is moved in every instance by the frictional engagement of the band with such rollers or pulleys. In a dating device embodying the present invention the band is at one or more points carried over and supported by a wheel or roller provided with a series of parallel rods or teeth adapted to engage the space between the projecting parts or letters on the band, so that the band is positively engaged by the said roller, and is thereby caused to move with certainty when the roller is rotated.

As a further improvement, I have provided for moving two or more rollers, constructed as above described, a notched or toothed wheel or disk engaged with the said rollers, thereby enabling the same to be turned at the same time at an equal speed for moving the band.

The invention also embraces other matters, as hereinafter set forth and claimed.

In the accompanying drawings, Figure 1 is a side elevation, with parts in section, of a self-inking hand-stamp provided with a dating device constructed in accordance with my invention. Fig. 2 is a sectional view of the dating device removed from the stamp, the section being taken upon line $x\,x$ of Fig. 3. Fig. 3 is a sectional view of the same, taken upon line $x\,x$ of Fig. 2. Fig. 4 is a perspective view of the frame. Figs. 5, 6, and 7 illustrate a novel means of connecting the ends of a type-band.

The hand-stamp illustrated in Fig. 1 of the drawings is similar to a stamp shown in a prior Letters Patent, No. 288,385, dated November 13, 1883. In said Fig. 1, A is the main frame or body of the stamp, and A′ the die-plate, to which the dating device is attached, and which is rotated by a relative movement of the handle and frame in such manner as to cause the types to come in contact either with the inking-pad or with the surface to be printed, in a manner heretofore well known and understood.

The main part of the frame of the dating device illustrated consists of two vertical end plates, B B, generally triangular in shape, said plates being arranged parallel with each other and connected one with the other by means of a cross-bar, C, which forms the support for the several type-bands at the point of printing, and by several shafts or rods, D E E F F, upon which the several guide rollers or pulleys for sustaining the type-bands are mounted.

B′ B′ are two plates which are arranged between and parallel with the plates B B, and are connected with the latter by the rods D, E E, and F F. Said plates B′ B′ serve to give additional strength to the frame and operate as guides to the bands, as will hereinafter more fully appear.

G G indicate two type-bands, which in a dating device will contain the names of the month and numbers expressing the year, and H is a type-band located between the said bands G G and provided with numbers expressing the days of the month. Said band H is sustained upon a roller, I, mounted upon the shaft D, and passes over two supporting wheels or rollers, J J, mounted on the shafts

E E, and also over two rollers, K K, mounted on the shafts F F. The rollers J J are located side by side between the die-plate A′ and the roller I, while the rollers K K are arranged adjacent to the die-plate, exterior to and either side of the said rollers J J. The said band H passes from the cross-bar C over the rollers J J, thence outwardly around the rollers K K, and then upwardly to and over the roller I. The said type-band H passes over the rollers J J with its face inwardly or toward the axis of the rollers, and said rollers, instead of being smooth or cylindric, as common heretofore, are provided with projections or teeth engaging the band in the spaces between the letters thereon, the teeth being preferably so arranged that the printing-faces of the letters will be held free from contact with any part or surface of the roller in passing around the latter. The bands G G are sustained, in the same manner as the band H, by means of rollers I′ I′ upon the rod D, rollers J′ J′ upon the rods E E, and rollers K′ K′ upon the rods F F.

In the particular construction of the supporting wheels or rollers J J illustrated said rollers each consist of two side plates or disks, *j j*, which are mounted upon the shaft E parallel with each other. Attached to said disks are a series of cross rods or pins, *j′ j′*, which form the teeth or projections above mentioned, by which the band is sustained. The rollers J′ J′ are similarly formed by disks $j^2$ $j^2$ and rods or pins $j^3$ $j^3$. Said side plates or disks, *j j* $j^2$ $j^2$, are placed at such distances apart as to admit the bands G G and H freely between them.

L L are wheels or disks mounted upon the shaft D adjacent to and at opposite sides of the roller I, and provided with peripheral gear-teeth constructed to engage with similar peripheral teeth upon the disks *j j*, so that when the said wheels or disks L L are rotated by the hand both of the rollers J J will be turned.

L′ L′ are similar toothed wheels or disks mounted upon the shaft D adjacent to the rollers I′ I′, and engaged with peripheral teeth of the disks $j^2$ $j^2$ of the wheels J′ J′. The wheels J′ J′, belonging to the outer bands, G G, are herein shown as having each only a single-toothed disk, $j^2$, engaging a single-toothed disk, L′, located adjacent to the frame-plate B, while the disks *j j* of the wheel J, supporting the middle band, are both provided with teeth and engaged with two disks, L L. This construction will commonly be used in order to separate the actuating-wheels L′ L′ of the exterior bands from the wheels L L of the inner band and to give a uniform appearance to the dater which it would not have if provided with only three actuating-wheels. It is entirely obvious, however, that the number of the said wheels may be varied from that shown without departure from my invention.

The dating device herein shown is provided with a shell or casing, O, which extends over the sides of the frame between the plates B B, and is attached to or supported upon said plates. Said shell or casing O is provided with a number of slots, *o o*, through which pass the marginal parts of the actuating-disks L L L′ L′, thereby enabling said disks to be conveniently reached and moved by the fingers, while at the same time the main operative parts of the dating device are covered and protected from dust and dirt.

The frame supporting the type-bands may be attached to the die-plate A′ in any desired or preferred manner. A simple and convenient construction for the purpose is herein shown, in which the die-plate A′ is provided with two standards, *a a*, screw-threaded at their upper ends, and in which two nuts, $a'$ $a^2$, are placed upon the screw-threaded part of each of said standards, and are adapted to engage the opposite sides of slotted ears *b b* in the frame-plates B.

The plates B′ B′ are located between the middle band, H, and the exterior bands, G G, and serve to separate from each other the several rollers or pulleys supporting said bands, and to thereby prevent said rollers or pulleys from moving endwise upon their supporting-shafts and coming in contact with each other. Said plates also serve by their engagement with the several shafts to hold the latter from becoming bent or displaced laterally under the strain of the bands thereon. Another and important function of the plates B′ B′ is to guide and keep separate from each other the bands G G and H at the point at which said bands pass over the supporting-bar C. Said bands, when the plates B′ B′ are absent, are liable to become shifted sidewise and thereby brought into contact with an adjacent band, and when two bands thus come in contact they are liable to adhere to each other by reason of the presence of ink thereon, so that when one band is moved another band will be moved with it. Such an occurrence throws out of place the types already in position for printing, and is otherwise annoying and troublesome. By the use of the said plates B′ B′ the bands are kept entirely separate from each other, and the interference of one band with or its adherence to another band is rendered impossible. Plates located between the bands, like those herein shown, are illustrated but not claimed in the separate application, Serial No. 216,500, hereinbefore referred to.

In Figs. 5, 6, and 7, as well as in Fig. 2, I have shown a novel means of connecting the ends of rubber type-bands, especially applicable in the case of bands intended for use in connection with a roller provided with teeth which engage the projecting types, where a uniform series of equidistant projections upon the printing-face of the band is desirable. As shown in said figures, the band H is provided at its ends with integral projections or lugs *h h*, having square end faces adapted to

abut against each other when the ends of the band are brought together. Said projections are constructed to extend outwardly from the face of the band a distance about equal to the height of the type projections, and each of said projections is about one-half the length of one of said type projections, measured lengthwise of the band, so that when the ends of the band are brought together said lugs *h h* will form a projection of about the same size as one of the type projections. The ends of the band thus made are secured together by a metal clasp or clasps inserted through the band and embracing the lugs *h h* in such manner as to hold the latter closely together and to firmly secure the ends of the band to each other. As illustrated in the drawings, a metal clasp, P, is employed, having four prongs, which are bent around the lugs *h h*, and a cross-bar, *p*, connecting the pairs of opposite prongs with each other. It is to be understood, however, that any kind of a clasp or holding device may be employed to hold together the ends of the band formed as described without departure from my invention. It is not to be understood, however, that the lugs or projections *h h* must necessarily correspond in size and shape with the type projections of the band, inasmuch as a projection of any shape and size will engage the teeth of the driving-roller, and thereby produce a much more satisfactory result than can be obtained with a band made without such projection, as common heretofore.

I am aware that it has been proposed heretofore to employ a cogged roller engaging the projections upon the face of a dating-band for moving or propelling such band; but I am not aware that a supporting-roller for sustaining the band has ever been thus constructed, and a plurality of supporting-rollers embracing a roller having projections or cogs engaging the printing-face of a type-band which is placed around and supported on said roller is herein claimed as one of the principal features of novelty in my invention. The employment of one or more rollers having teeth and arranged to engage the printing-face of the band is of particular utility in a dater embracing a plurality of supporting-rollers grouped in a small space at the back of the die-plate, and a construction of this kind is also herein claimed as new, together with other novel features of construction in the dating device illustrated.

I claim as my invention—

1. The combination, with a type-band, of a support sustaining the band at the point of printing, and a plurality of supporting-rollers for the band, two of which engage the face of the band, one at each side of the said support, said rollers, which engage the face of the band, being provided with teeth or projections adapted to engage the spaces between the projecting types upon the band, substantially as described.

2. The combination, with the frame and the revolving die-plate of a self-inking hand-stamp, of a flexible type-band, a support for the band at the point of printing, and a plurality of rollers for sustaining the band mounted upon the die-plate within the space inclosed by the frame, two of which rollers are adapted to engage the printing-face of the band, one at each side of the said support, said two rollers, which engage the face of the band, being provided with projections or teeth engaging the spaces between the projecting types upon the band, substantially as described.

3. The combination, with a type-band, a support for the same at the point of printing, and a plurality of guides or supports for the band embracing two wheels or rollers provided with cogs or teeth engaging spaces between the projecting types of the band, and a notched or cogged wheel engaging both of said cogged wheels or rollers, substantially as described.

4. The combination, with a type-band and a support for the band at the point of printing, of two supporting-rollers, J J, provided with teeth engaging the spaces between the projecting types of the band, and three supporting-rollers, I K K, engaging the back or rear surface of the band, substantially as described.

5. The combination, with the frame of a dating apparatus, a type-band, and a support for the band at the point of printing, of two rollers, J J, provided with teeth or projections engaging the spaces between the projecting types of the band, supporting-rollers I K K, a shaft, D, for said roller I, and a toothed actuating-wheel mounted upon said shaft D and engaged with said rollers J J, substantially as described.

6. The combination, with the frame of a dating apparatus and a type-band, of a plurality of supports for the band embracing the roller adapted to engage the printing-face of the band, said roller consisting of two disks, and cross-bars attached to and between the same, one of said disks being provided with peripheral cogs, and a toothed actuating-wheel mounted upon the frame and engaging with the cogged disk, substantially as described.

7. The combination, with a dating-device frame and wheels or rollers for supporting a band provided with projections or teeth engaging the space between projecting types upon the band, of a rubber type-band and means for connecting the ends of the band, consisting of integral projections or lugs cast upon the ends of the band, and a metal clasp having prongs engaging the said projections or lugs, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

LOUIS K. SCOTFORD.

Witnesses:

C. CLARENCE POOLE,

O. N. WILLIS.