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ATTACHING MEANS FOR MULTIGRAPH SIGNATURE PLATES

Filed Nov. 13, 1926

Fig. 1.

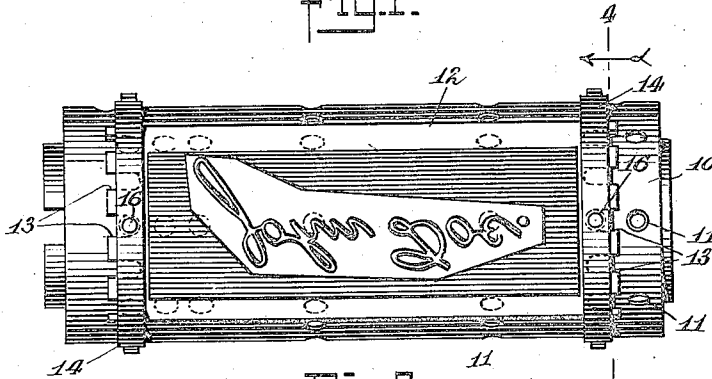


Fig. 2.

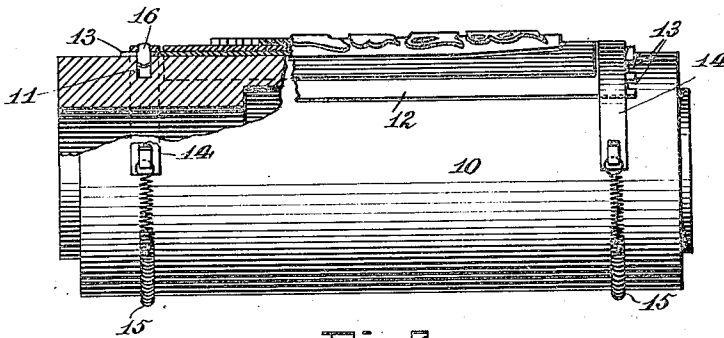


Fig. 3.

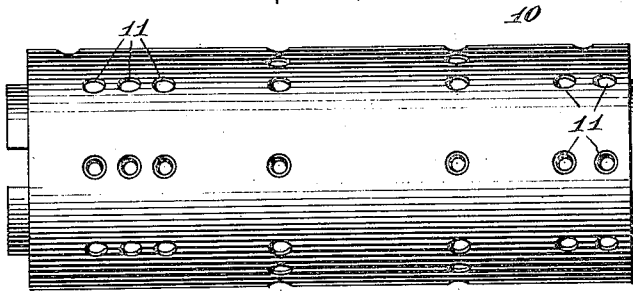


Fig. 6.

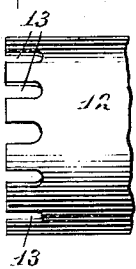


Fig. 4.

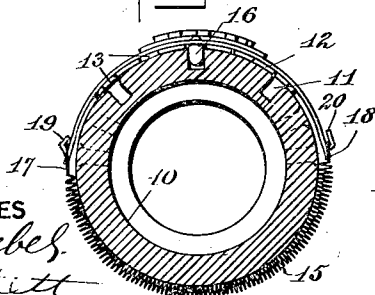
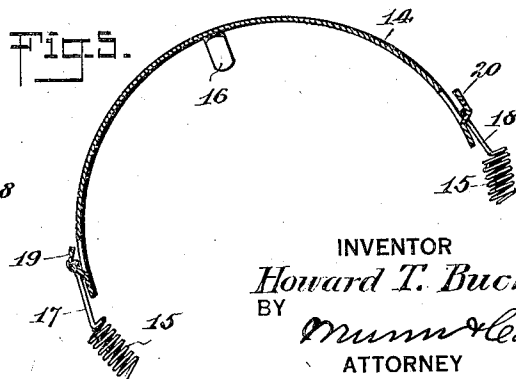


Fig. 5.



WITNESSES
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UNITED STATES PATENT OFFICE.

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ATTACHING MEANS FOR MULTIGRAPH SIGNATURE PLATES.

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This invention relates to attaching devices and has particular reference to an improved means for attaching the signature bearing elements to the platen roll of a multigraphing machine.

At the present time the signature plates are commonly attached to the platen roll of a multigraphing machine by clips or strips which engage over the edge of the signature plate and which clips or strips are held in place by the passage of screws therethrough which screws are anchored in threaded openings in the platen. In addition to the time and labor required in changing the plates on the roll this means of attachment is open to the objection that it oft times warps the signature plate and prevents a proper impression or reproduction of the signature on the paper. Furthermore, the plates which at the present time include an arcuate more or less flexible backing element have a tendency to become warped and the clips or strips now employed do not function to overcome this objection.

As one of its principal objects the invention aims to provide an improved attaching means of a character set forth which, in addition to greatly facilitating the operation of mounting and dismounting the signature plate on the platen roll also functions to prevent warping of the plate, at the same time, operates as a means for restoring the plate when applied to its proper shape while holding the same in perfect contact with the platen roll.

The invention furthermore comprehends an attaching means which eliminates the necessity of using a screw driver or other tool for the purpose of applying or removing the signature plate.

As a still further object the invention comprehends an attaching means which allows for circumferential adjustment of the signature plate on the platen roll so as to insure the proper relation of the signature to the letter.

The invention further comprehends an attaching means of the character set forth which is extremely simple in its construction, inexpensive to manufacture, and which is highly efficient in its purpose.

With the above recited and other objects in view, reference is had to the following specification and accompanying drawings in which there is exhibited one example or embodiment of the invention which is in no

way intended as a limitation upon the scope of the appended claims as it is to be clearly understood that variations and modifications which properly fall within the scope of said claims may be resorted to when found expedient.

In the drawings—

Figure 1 is a plan view of a platen roll illustrating the signature plate mounted thereon by means of the improved attaching means;

Figure 2 is a side view thereof with parts in section;

Figure 3 is a detail plan view of the platen roll with the signature plate removed;

Figure 4 is a transverse sectional view taken approximately on the line 4—4 of Figure 1;

Figure 5 is an enlarged sectional view through the attaching means removed;

Figure 6 is a fragmentary view of the backing element of the signature plate.

Referring to the drawings by characters of reference, 10 designates the platen roll which may be of the ordinary construction having radial apertures 11. The backing element 12 of the signature plate is provided with a plurality of notches 13 in its opposite ends so that when mounted on the periphery of the platen roll the notches may be brought into prospective registry with the apertures 11. In order to attach the signature plate a pair of retaining elements are employed which are adapted to encircle the platen roll and said retaining elements preferably consist of radially contractile bands each of which includes a substantially semi-circular non-elastic section 14 and a similarly formed elastic or resilient section 15, the former being in the nature of a strip of sheet metal and the latter preferably in the nature of a coiled contractile spring. The non-elastic section 14 is provided with a radial inwardly projecting detent or pin which is preferably provided intermediate its length and which is of a size to snugly fit the notches 13 and apertures 11. The opposite terminals 17 and 18 of each spring or section 15 are connected with the band section or non-elastic section 14 by slitting from the section 14 tongues 19 and 20, one of which, for instance the tongue 19, is bent around the spring terminal 17 to permanently attach the spring terminal thereto while the other of which, for example the tongue 20, constitutes a hook for detachably hold-

ing the spring terminal 18 in associated relation with the band section 14. By constructing the element in this manner it is obvious that the same may be applied to or removed from the platen roll without the necessity of removing the same from its bearings. When the attaching elements are arranged in place as illustrated in Figures 1, 2 and 4 it is obvious that the signature plate may be associated with or removed from the platen roll with the greatest facility, and without the necessity of employing a screw driver or other tool. It will also be observed that the shifting of the signature plate circumferentially on the platen roll may be readily accomplished and the operation of adjusting, removing or applying the signature plate is accomplished by raising the band sections 14 a sufficient distance to disengage the detents or pin 16 from the notches and apertures, and moving the same axially or laterally outward.

From the foregoing it will thus be seen that an extremely simple, inexpensive and effective attaching means has been devised which greatly reduces the time and labor incident to the mounting or dismounting of a signature stamping upon the platen roll. It will be further noted that in the event of a warped condition existing in the signature plate, the embracing engagement of the band sections 14 therewith will tend to draw and maintain the signature plate in perfect contact with the periphery of the platen roll.

What I claim is:

1. The combination with the apertured platen roll of a multigraphing machine and a signature plate having notches in its opposite ends, of means for detachably connecting the plate with the roll comprising a pair of substantial semi-circular flexible strips each provided with a stud adapted to engage through the notched ends of the plates and the apertures of the platen roll and an elastic means of connection between the free ends of each strip engaging around the platen roll.

2. The combination with the apertured platen roll of a multigraphing machine and a signature plate having notches in its opposite ends, of means for detachably connecting the plate with the roll comprising a pair of substantial semi-circular flexible strips each provided with a stud adapted to engage through the notched ends of the plates and the apertures of the platen roll and an elastic means of connection between

the free ends of each strip engaging around the platen roll, said elastic means of connection being permanently secured to one end of the strip and detachably engaged with the opposite end.

3. In a multigraph machine signature printing attachment, means for detachably associating the signature plate with the perforated platen roll comprising notched ends formed in the plate and radially contractile bands having detents engageable through the notched ends of the plate and the perforations of the roll.

4. In a multigraphing machine signature printing attachment, means for detachably associating the signature plate with the perforated platen roll comprising notched ends formed in the plate and radially contractile bands having detents engageable through the notched ends of the plate and the perforations of the roll, said bands being radially expansible to permit disengagement of the detents and lateral shifting of the bands.

5. In a multigraph machine signature printing attachment, means for detachably associating the signature plate with the perforated platen roll comprising notched ends formed in the plate and radially contractile bands having detents engageable through the notched ends of the plate and the perforations of the roll, said bands including flexible non-elastic substantial semi-circular sections and contractile elastic sections.

6. In a multigraph machine signature printing attachment, means for detachably associating the signature plate with the perforated platen roll comprising notched ends formed in the plate and radially contractile bands having detents engageable through the notched ends of the plate and the perforations of the roll, said bands including flexible non-elastic substantial semi-circular sections and contractile elastic sections, said elastic sections being permanently secured at one end and detachably connected on the opposite end to the non-elastic sections whereby to permit of the association and disassociation of the bands with the platen roll without the necessity of removing the platen roll from its bearings.

7. A device for detachably associating a type bearing element with a platen roll, said device including radially contractile means circumferentially embracing the platen roll and having a detent respectively engageable with the bearing element and platen roll.

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