

Oct. 26, 1937.

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DUPLICATING APPARATUS

Filed June 22, 1936

2 Sheets-Sheet 1

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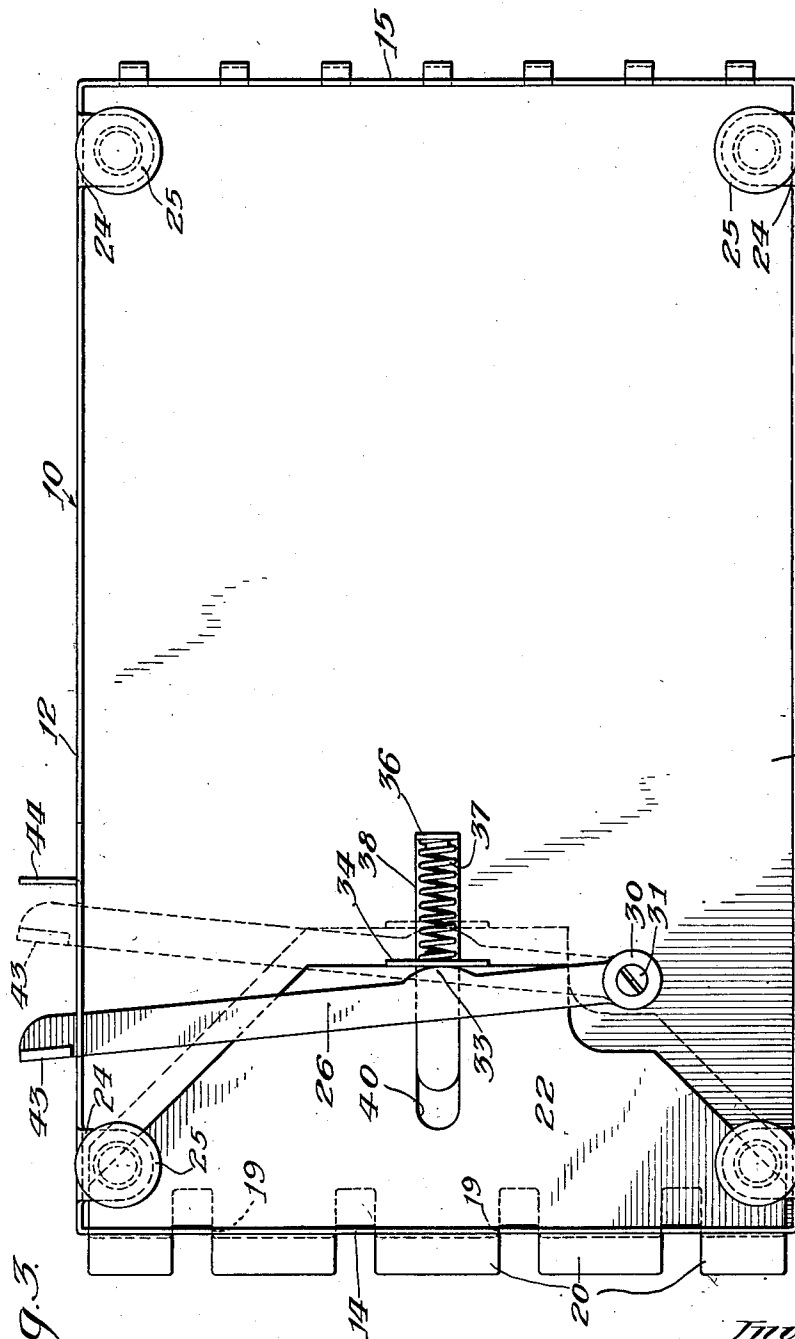


Fig. 3.

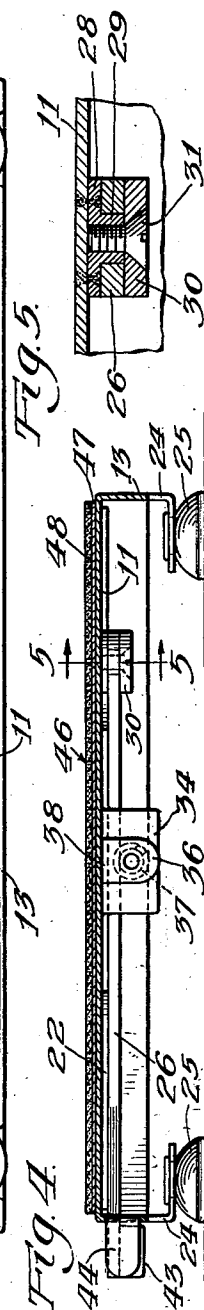


Fig. 4.

Fig. 5.

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UNITED STATES PATENT OFFICE

2,096,818

DUPLICATING APPARATUS

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Application June 22, 1936, Serial No. 86,611

4 Claims. (Cl. 101—131)

The invention relates to duplicating apparatus and has for its primary object the provision of a simple, inexpensive duplicating device which is compact, rugged in construction and which can be operated efficiently by the operator.

Other objects and advantages will become apparent as the following description progresses, reference being had to the accompanying drawings wherein—

Fig. 1 is a plan view of a duplicating device which embodies the invention.

Fig. 2 is a longitudinal section taken on line 2—2 of Fig. 1.

Fig. 3 is a bottom plan view of the improved device.

Fig. 4 is a transverse section taken on line 4—4 of Fig. 1, and

Fig. 5 is an enlarged fragmentary section taken on line 5—5 of Fig. 4.

Referring to the drawings wherein a duplicating machine of the hectograph type embodying a preferred form of the invention is shown, the reference character 10 designates generally the frame of the machine which is preferably formed from sheet metal. In this instance, the bed of the machine comprises a flat, sheet metal plate 11 having downwardly extending flanges 12 and 13 at its sides and downwardly extending flanges 14 and 15 at its ends, the flanges 12, 13, 14 and 15 are preferably formed integral with the bed plate 11. The flange 15 has a plurality of L-shaped fingers or lugs 17 stamped therefrom, the fingers or lugs 17 having upwardly extending portions 18 which co-operate with each other to form a margin bar as hereinafter more fully explained.

The flange 14 is provided with a plurality of apertures 19 in which a plurality of tongues 20 projecting from and formed integral with a slide 22 are slidably journaled.

Lugs 24 formed integral with the flanges 12 and 13 and projecting downwardly therefrom have cup-shaped members 25 secured thereto, the cup-shaped members 25 being preferably formed from rubber so that they may be urged against a supporting surface to act as suction cups and prevent the duplicating device from moving over the supporting surface.

A lever 26 is pivoted to the bottom surface of the bed plate 11 by means preferably comprising a plate 28 which is welded to the bottom surface of the bed plate 11 (Fig. 5). A boss 29 projecting downwardly from and formed integral with the plate 28 pivots one end of the

lever 26, the lever being held in place, upon the boss 29 by a washer 30 and a screw 31 which projects through the washer 30 and is screw-threaded into the boss 29.

Intermediate its ends, the lever 26 is provided with an arcuate lug 33 which bears against a lug 34 formed integral with and projecting downwardly from the slide 22. Interposed between the lug 34 and a lug 36 is a compression spring 37 which yieldably urges the slide 22 to the left (Figs. 1 and 3). The lug 36 is preferably formed integral with a bar 38 welded to the bottom surface of the bed plate 11. It will be noted that the right hand end (Figs. 1 and 3) of the bar 38 slidably engages the slot 40 formed in the slide 22.

The free end of the lever 26 projects through the flange 12 and is provided with a finger piece 43. Aligned with the finger piece 43 is a lug 44 stamped out of the flange 12.

The hectograph pad is designated generally by the reference character 46. It comprises a backing member of paper, or the equivalent, the backing being designated by the reference character 47. The gelatin on the backing is designated by the reference character 48. It will be noted that the gelatin 48 does not extend to the ends of the backing member and that the ends of the backing member are re-enforced by sheet metal clips 50 which are preferably identical in construction so that the hectograph pad is interchangeable end for end. The clips 50 are preferably formed of sheet metal which is clamped upon the ends of the backing member. The backing member 47 is provided with a plurality of apertures 52 at its ends intermediate the clips 50 and the ends of the gelatin coating 48. As best shown in Figs. 1 and 2, the L-shaped lugs 17 pass through the apertures 52 at the right hand end of the gelatin pad 46.

The clips 50 are provided with grooves 54 and the groove 54 in the clip 50 at the left hand end (Figs. 1 and 2) of the hectograph pad 46 receives the tongues 20. The groove 54 at the right hand end receives the bottom edge of the flange 15.

Obviously, the spring 37 yieldably urges the slide 22 to the left (Figs. 1, 2 and 3) and draws the hectograph pad 46 taut over the bed plate 11.

The upwardly extending portions 18 of the fingers or lugs 17 function as a margin bar as indicated above. When a copy sheet is to be brought into contact with the gelatin coating 48, one end of the copy sheet is first inserted into the angle formed by the horizontal and vertically ex-

tending portions of the fingers or lugs 17 and the copy sheet is then pressed into contact with the gelatin coating 48. This insures proper registry of the copy sheet with the data upon the gelatin coating. When the copy sheet is to be removed from the gelatin coating the operator grasps the end of the sheet lying in the angle of the bent lugs 17, these lugs being spaced from each other a sufficient distance so that the end of the copy sheet may be grasped between the operator's fingers. The operator then pulls open the copy sheet and strips it from the gelatin coating.

When the gelatin pad 46 is to be replaced by a fresh gelatin pad 46 the operator places one finger against the lug 44 and pushes with the thumb against the finger piece 43 so that the lever 26 is displaced angularly in a clockwise direction (Fig. 3) against the action of the spring 37 so that the lugs or tongues 20 are retracted. Obviously, the old gelatin pad 46 may be removed from the machine and a fresh gelatin pad 46 may be placed thereon by first hooking the groove 54 at one end of the gelatin pad on the flange 15, as indicated in Fig. 2, and then hooking the re-enforcing clip 50 at the other end of the gelatin pad over the tongues 20. The operator then releases the lever 26 so that the spring 37 displaces the slide 22 to the left (Fig. 3) and draws the new gelatin pad 46 taut over the bed plate 11.

I claim:

1. A hectograph device comprising a bed plate having a downwardly extending flange at one end thereof, a plurality of bent lugs integral with said bed plate and said flange and providing a margin bar, a slide at the other end of said bed plate, a hectograph band provided with re-enforcing grooved clips at its ends, said band having apertures therein adjacent one clip to accommodate said bent lugs, the groove in one of said clips being engageable with said flange and the groove in the other of said clips being engageable with said slide, and yielding means for displacing said slide relative to said bed plate to draw said band taut over said bed plate.

2. A hectograph device comprising a bed plate having a downwardly extending flange at one end

thereof and having a plurality of bent lugs projecting from said bed plate beyond said flange, said bent lugs forming a margin bar, a hectograph band provided with a re-enforcing grooved clip at one of its ends, said band having apertures therein adjacent said clip to accommodate said bent lugs, said groove being engageable with said flange, means engageable with the other end of said band to hold said band taut over said bed, and a lever pivoted on said bed plate for retracting said holding means to release said band.

3. A hectograph device comprising a bed plate having a downwardly extending flange at one end thereof and having a plurality of bent lugs projecting beyond said flange to provide a margin bar, a slide at the other end of said bed plate, a hectograph band provided with re-enforcing grooved clips at its ends, said band having apertures therein adjacent one clip through which apertures said bent lugs project, the groove in one of said lugs being engageable with said flange and the groove in the other of said clips being engageable with said slide, yielding means for displacing said slide in one direction relative to said bed plate to draw said band taut over said bed, and a lever pivoted on said bed plate for displacing said slide in the opposite direction against the action of said yielding means.

4. A hectograph device comprising a bed plate having downwardly extending flanges at its ends and having a plurality of lugs projecting from one end to form a margin bar spaced from said end, one of said flanges having a plurality of apertures therein, a slide journaled in said apertures and disposed at the end of said bed plate opposite that having said lugs, a hectograph band provided with re-enforcing groove clips at its ends, said band having apertures therein adjacent one clip to accommodate said lugs, the groove in one of said clips being engageable with said flange and the groove in the other of said clips being engageable with said slide, yielding means for displacing said slide relative to said bed plate to draw the band taut over said bed plate, and a lever for displacing said slide to release said band.

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