

1,065,198.

3 SHEETS—SHEET 1.



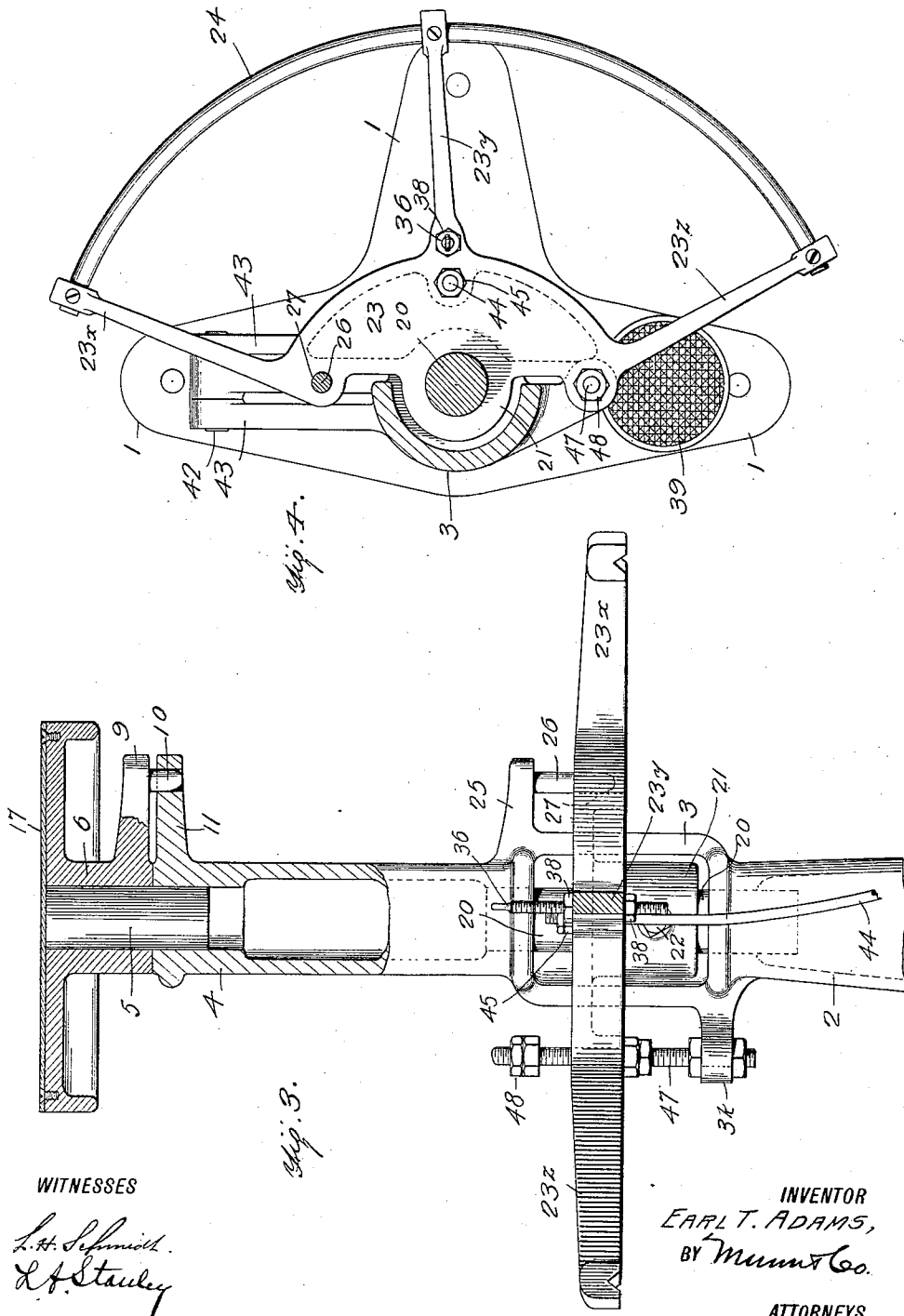
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E. T. ADAMS.
 BUTTONHOLE MARKING MACHINE.
 APPLICATION FILED JUNE 3, 1912.

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Patented June 17, 1913.

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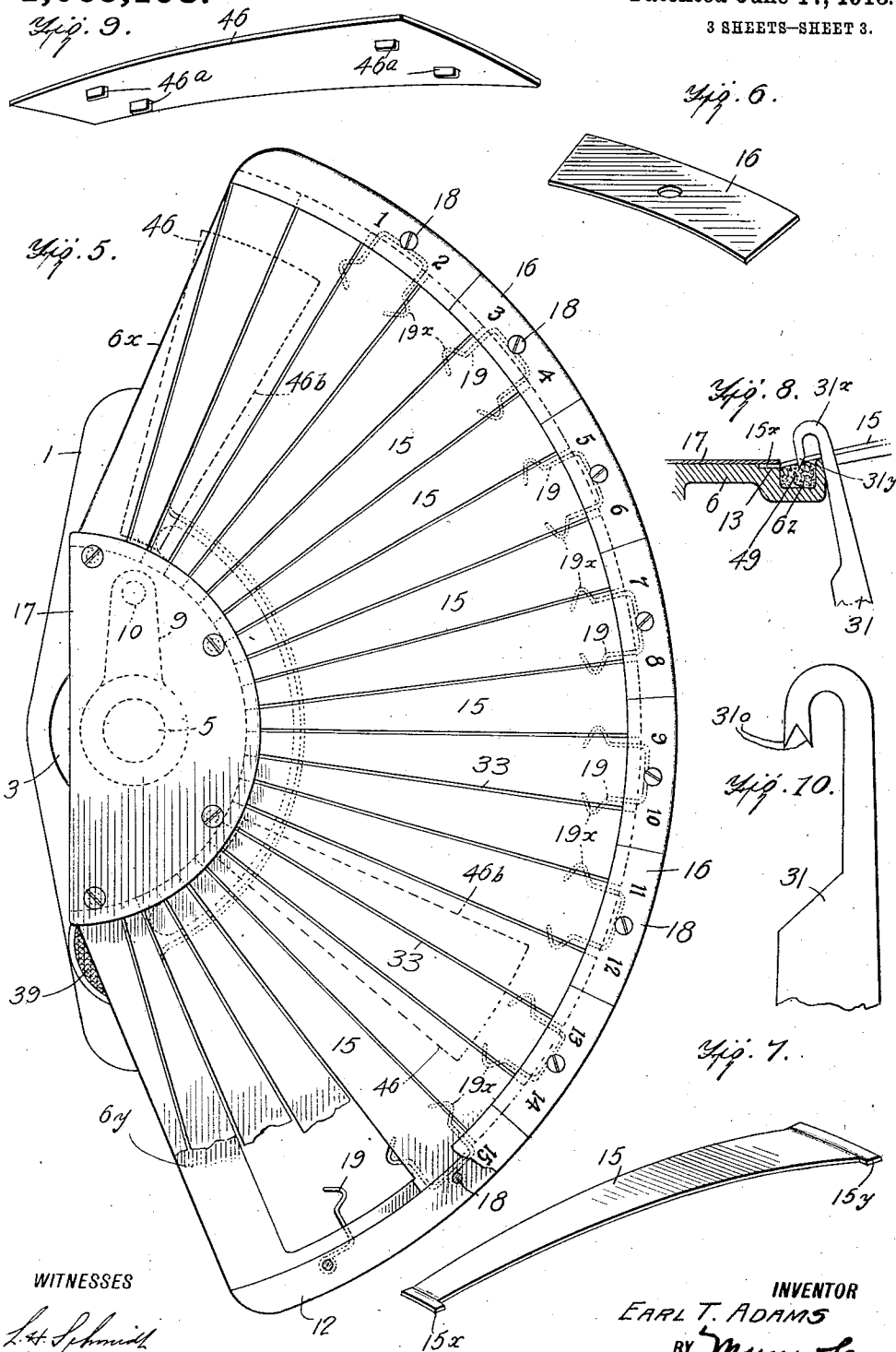


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WITNESSES

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EARL T. ADAMS, OF PORTSMOUTH, OHIO.

BUTTONHOLE-MARKING MACHINE.

1,065,198.

Specification of Letters Patent.

Patented June 17, 1913.

Application filed June 3, 1912. Serial No. 701,179.

To all whom it may concern:

Be it known that I, EARL T. ADAMS, a citizen of the United States, and a resident of Portsmouth, in the county of Scioto and State of Ohio, have made certain new and useful Improvements in Buttonhole-Marking Machines, of which the following is a specification.

My invention relates to improvements in button hole marking machines, and it consists in the combinations, constructions, and arrangements herein described and claimed.

An object of my invention is to provide a button hole marking device, by means of which the button holes of shoes may be marked quickly and accurately with a minimum of labor.

A further object of my invention is to provide a machine which is self contained, all parts being carried by a single standard or upright, and which therefore takes up little room.

A further object of my invention is to provide a novel form of marker.

A further object of my invention is to provide novel means for simultaneously adjusting all the markers.

Other objects and advantages will appear in the following specification, and the novel features of the device will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings forming part of this application in which—

Figure 1 is a vertical section through the device, Fig. 2 is a perspective view of one of the marking arms, Fig. 3 is a front view of a portion of the device, the upper part being shown in section, and certain parts being removed for the sake of clearness, Fig. 4 is a section along the line 4—4 of Fig. 1, the marking arms being removed, Fig. 5 is a plan view of the marking table, Fig. 6 is a perspective view of one of the retaining plates, Fig. 7 is a perspective view of one of the curved guide segments, Fig. 8 is a sectional view showing the modified form containing an inking pad for use with certain kind of shoes, Fig. 9 is a perspective view of the bottom of one of the fly gages, and Fig. 10 is a modified form of the marking device.

In carrying out my invention I provide a base 1 which may be bolted or otherwise secured to the floor. Extending upwardly therefrom is a hollow standard or upright

2, which has an integral arc-shaped member 3 at its top connecting it with an upper extension 4 which is also hollow. Disposed in the upper bore 4^x of the hollow extension 4 is a rod 5, which is arranged to enter an opening in a casting 6. In order to secure the rod 5 in position, I make use of a set screw 7, which extends through the member 4. The casting 6 is secured to the rod 5 by means of a set screw 8. This casting has a lateral extension 9, provided with a guide pin 10 arranged to enter a lateral extension 11 on the member 4, so as to prevent the rotation of the casting 6 on the rod 5, (see Fig. 3). The casting 6 forms part of a frame on the marking table. The casting 6 is provided with the radial extensions 6^x and 6^y (see Fig. 5) the ends of which are connected by a curved angle iron 12. This forms a fan shaped frame, as shown in Fig. 5. The casting 6 is provided with a groove 6^z, which is concentric with the shaft 5. It is also provided with a groove 13 in which the ends of the curved guide segments are disposed, as will be explained later. The rim 12 has a similar groove 14 to receive the opposite end of the guide segments.

The guide segments 15 are best shown in Fig. 7. They are curved on the radius of a circle and taper from their outer ends inwardly. Each one is provided with an inner flange 15^x and an outer flange 15^y, these flanges being bent at an angle and being slightly extended beyond the segment on one side thereof. A number of these segments 15 are disposed with their ends in the grooves 13 and 14, as heretofore explained, being secured in place by means of segmental plates 16 like that shown in Fig. 6, secured to the upper part of the rim 12 and by a semicircular plate 17, which covers the upper part of the casting 6 and the shaft 5. The screw bolts 18, which secure the plates 16 also serve as securing means for U-shaped spring retaining members 19 (see Figs. 1 and 5), the ends of the U-shaped spring members being bent back upon themselves as shown at 19^x and arranged to lie just beneath the space or slot between adjacent guide segments.

Arranged to slide in bores in the members 2 and 4 is a rod 20. This rod has a collar 21, which is secured to it by means of a set screw 22. The collar has an integral fan shaped extension 23 at its upper end (see Fig. 4) having radial arms 23^x, 23^y and 23^z.

These arms carry a curved shaft 24 which serves as a pivotal support for the marking members, as will be explained later. In order to prevent the rotation of the collar and its integral extension 23 about the rod 20, I provide a lateral extension 25 of the portion 3 of the upright, which has a guide pin 26 arranged to enter an opening 27 (see Fig. 3).

The marking arm, which carries the marking point, is shown in Fig. 2. In order to provide a wide bearing, and at the same time provide a counterweight for the arm, I make use of a stamped piece of metal 28 of the shape shown in Fig. 2, which has a U-shaped extension 29, both the extension and the body portion being provided with aligned openings 30. The arm 31 is riveted or otherwise secured to the member 28 at 32, the lower part of the arm being rounded to rest upon the shaft 24. The upper part of the arm is bent into the form of a hook 31^x and is provided with a sharpened marking point 31^y, or with a plurality of points as shown in Fig. 10 at 31°. These arms 31 are mounted upon the shaft in such a manner that their upper ends project through the slots or spaces 33 between the guide segments 15, and the shaft 24 is so curved that the oscillation of any arm on the shaft will cause it to follow the slot 33. On the under side of the casting 6 is an ear 34 to which a spring 35 is attached. The lower end of this spring is secured to an eye bolt 36, which passes through an opening 37 in the radial extension 23^y (see Fig. 4). This eye bolt is provided with nuts 38 for the purpose of adjusting its position.

The means for operating the device consists of a foot pedal 39 at the end of a lever 40, which passes through openings 41 in the standard (see Fig. 1) and which is pivotally connected at 42 to a pair of brackets 43 integral with the standard 2, on the opposite side of the standard from the pedal. Extending from the lever 40 is a bent rod 44 which passes through the extension 23, the upper end of the rod being threaded and being provided with a nut 45. In Fig. 9, I have shown one of the gages 46 for locating the fly preparatory to marking button holes thereon. This gage is provided with a pair of lugs 46^a at each end thereof, one lug of each pair being arranged to enter one of the slots 33.

From the foregoing description of the various parts of the device the operation thereof may be readily understood.

Let us assume that it is desired to mark the position of twelve button holes on a fly. All of the arms 31 beyond the twelfth one are pushed to the outer part of the table as shown in dotted lines in Fig. 1. Here they are held by means of the springs 19, whose ends 19^x are forced toward each other

by the arms, but spring out in front of the arms, so as to prevent them from returning. The arms which are not to be used are thus held out of the way. One of the gages 46 is placed in the position shown in dotted lines in Fig. 5, the lugs entering the first two slots which are unnumbered. The edge 46^b of this gage lies at a predetermined distance from slot number 1, and is parallel with it. This distance may be varied according to the gage used. A second gage 46 has its lugs disposed in the slots numbers 13 and 14, and its edge 46^b is parallel to the slot 12. The operator now takes the edge of the fly and placing it against the marking arms which are held by their counterweights against the plate 17 pushes them outwardly until the ends of the fly lie contiguous to the edges 46^b of the gages 46. The foot pedal 39 is then depressed, and this draws down the collar 21 carrying the extension 23 and the shaft 24, together with all of the marking arms. The points 31^y of the marking arms pierce the fly, thus leaving permanent marks for indicating the position of all of the button holes. When the foot pedal is released, the spring raises the shaft and the marking arms, thus freeing the fly from the points and permitting its ready removal. The rod 25 guides the extension 23 in its upward and downward movement. It is obvious that when the gages have been once located the operation of marking the flies may be conducted very rapidly. If more or less are to be marked the gages may be shifted accordingly. In Fig. 3, it will be seen that I have provided an extension 3^k which bears a bolt 47 arranged to pass loosely through the extension 23. Nuts 48 on the bolt 47 are provided for adjusting the throw of the arms 31. In some cases, as for instance where the flies of white canvas shoes are to be marked, I may make use of a modified form of the device like that shown in Fig. 8. In this figure the groove 6^z contains an inking pad 49. When the arms 31 are in their normal position, *i. e.*, above the inking pad, the points 31^y of the marking devices may be brought into engagement with the pad by pressing the foot lever. Now when the canvas flies are placed underneath the marking devices the latter will leave the ink mark upon them.

I claim:—

1. In a marking machine, a standard, a casting secured at the top of said standard and having radial extensions, the ends of said radial extensions being connected by an arc-shaped angle iron, a series of marker arm guide segments disposed between the outer angle iron and the main body of the casting, and means for retaining the guide segments in position.

2. In a marking machine, a standard, a casting secured at the top of said standard

and having integral radial extensions, the ends of said integral radial extensions being connected by an integral arc-shaped angle iron, a series of curved marker arm guide segments disposed between the outer angle iron and the main body of the casting, said guide segments being spaced apart to provide radial slots, and means for retaining the guide segments in position.

3. In a marking machine, a standard, a movable frame carried by said standard, means for causing a vertical reciprocation of said frame, an arc-shaped pivot rod carried by said frame, a slotted table carried at the top of said standard, and a series of marking arms carried by said arc-shaped pivot rod, each of said arms consisting of a weighted portion having an integral U-shaped extension, said extension and said weighted portion being provided with aligned openings arranged to receive the rod, the upper end of each arm being bent over into the form of a hook, the end of the hook constituting a marking device, and each of said hooks being arranged to enter one of the slots in said table.

4. In a marking machine, a slotted table, an arc-shaped pivot rod, and a series of marking arms carried by said arc-shaped pivot rod, each of said arms comprising a main body portion, a lower weighted portion secured thereto, the axis of said weighted portion being at an angle to that of the

arm, an integral U-shaped extension carried by said weighted portion, said extension and said weighted portion being provided with aligned openings arranged to receive the rod, the upper part of the arm being reduced in width and being bent into a hook lying in the plane of the main body portion, each of said hooks being disposed in one of said slots.

5. In a marking machine, a standard having a cylindrical bore, a cylindrical rod mounted in said bore at the top of said standard, a casting having a cylindrical bore arranged to receive said cylindrical rod, means for securing the casting to the rod, said casting having a groove concentric with said rod and being provided with extensions constituting a frame, a series of guide segments carried by said frame, said guide segments being spaced apart to provide radial slots, a series of marking arms, the upper ends of said marking arms projecting through said radial slots and being provided with hook-like points, an inking pad disposed in the groove in said casting, and means for simultaneously moving said arms downwardly to bring the points into engagement with the inking pad.

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Witnesses:

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