

May 4, 1937.

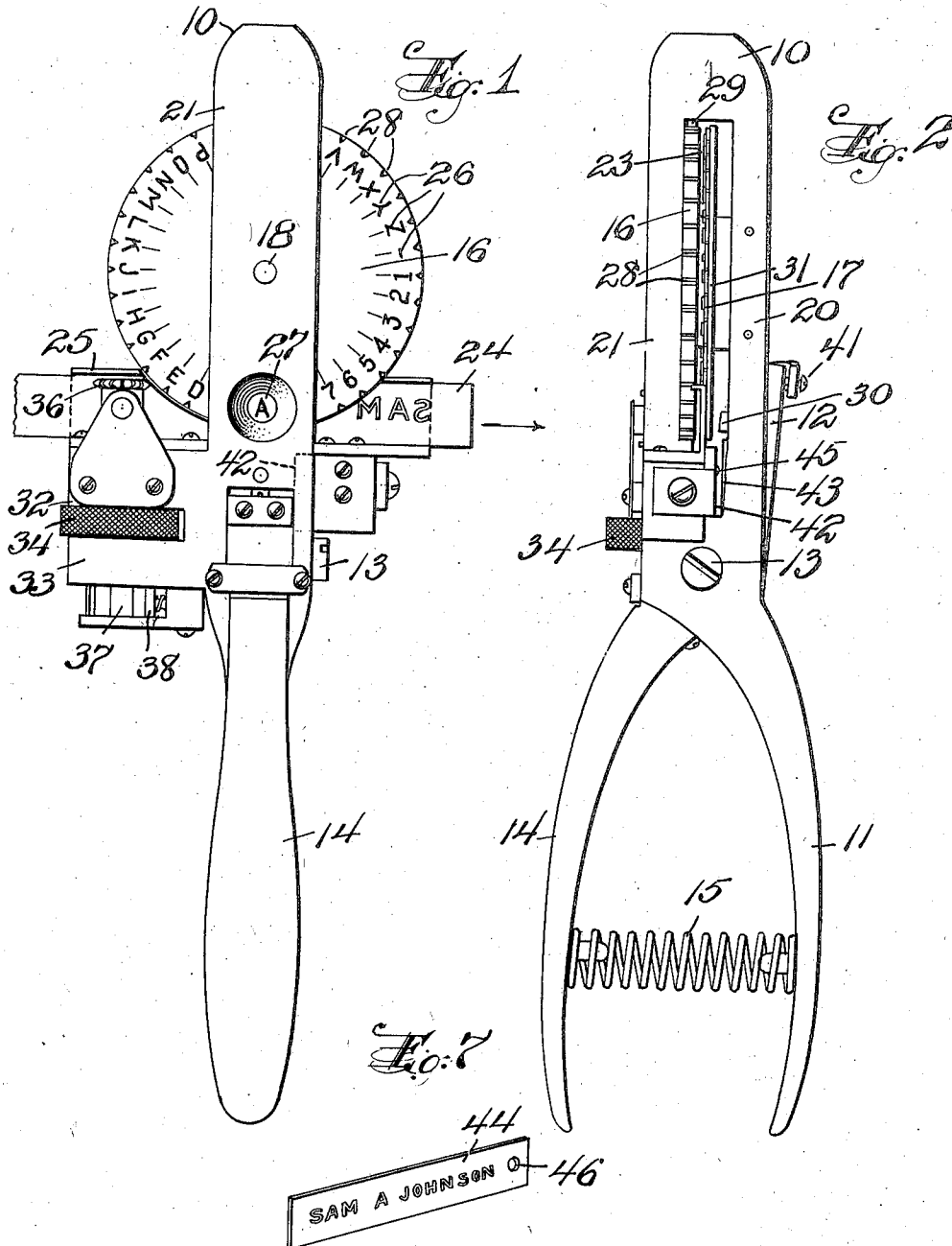
F. W. ZIPF

2,079,236

MARKING TOOL

Filed Aug. 16, 1935

2 Sheets-Sheet 1



INVENTOR
Frederick W. Zipf.
BY
Wm. H. Campfield.
ATTORNEY

May 4, 1937.

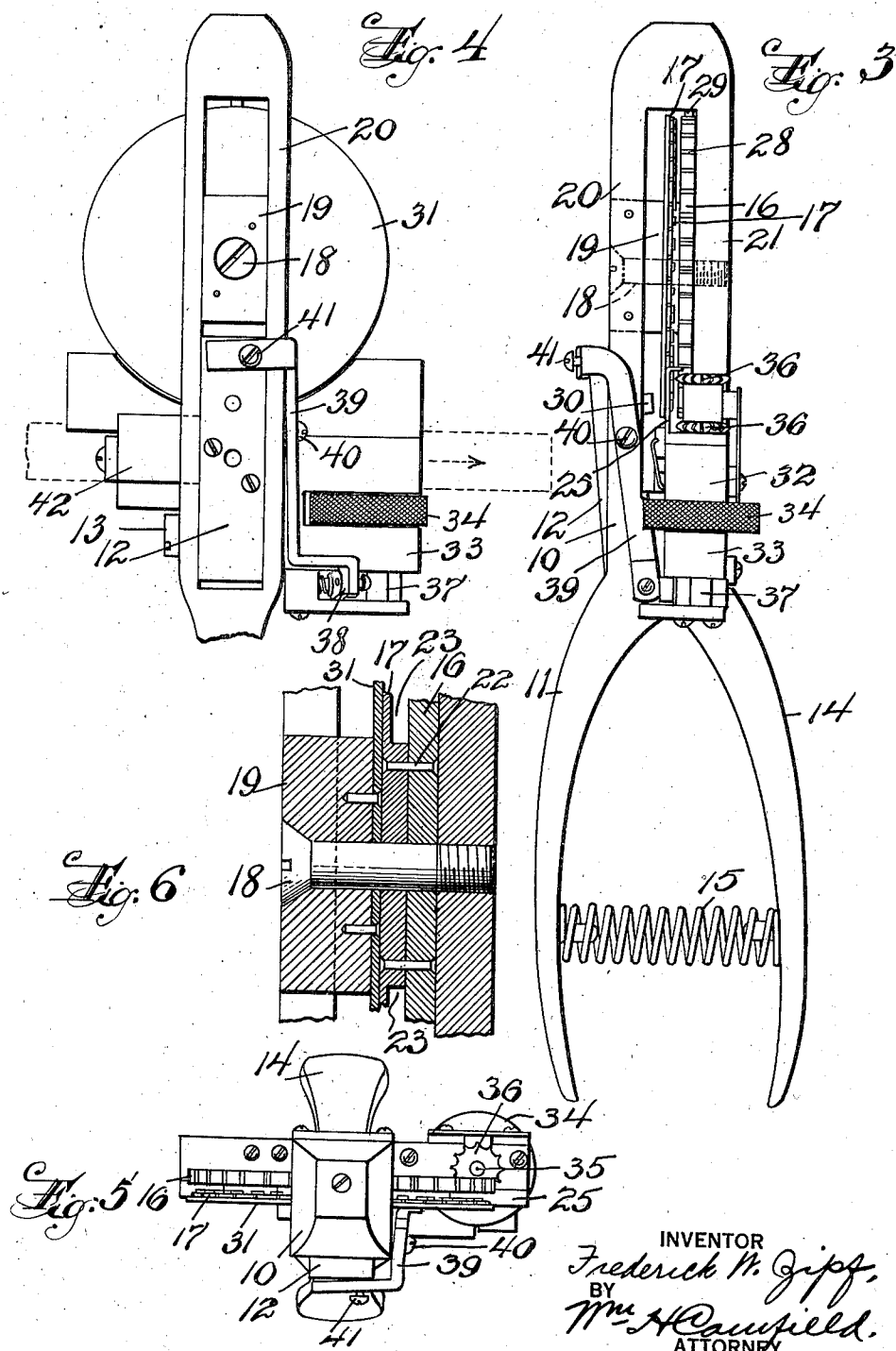
F. W. ZIPF

2,079,236

MARKING TOOL

Filed Aug. 16, 1935

2 Sheets-Sheet 2



INVENTOR
Frederick W. Zipf,
BY
H. H. Campfield,
ATTORNEY.

UNITED STATES PATENT OFFICE

2,079,236

MARKING TOOL

Frederick W. Zipf, Newark, N. J.

Application August 16, 1935, Serial No. 36,494

2 Claims. (Cl. 197—6.7)

This invention relates to an improved machine for embossing strips. It is particularly adapted for embossing metal strips and while it can be utilized for making ornamental strips it is particularly adapted for embossing labels.

The embossed label is usually made of soft non-rust metal and its principal use at present is in marking plants for growers and nurserymen. The present practice is to mark identifying marks on thin wooden labels wired to a plant or bulb. Exposure to the weather soon obliterates the marking, particularly when it is also splashed or rubbed with soil.

The present machine is designed to furnish labels from a strip of metal and to emboss the strip with letters or numbers or other identifying matter and when this embossing is finished the strip is cut off to form a label. The machine requires the setting of characters of the embossing device but the feeding of the strip is automatic to properly space the characters. The cutting of the strip to form the label can also be accompanied by the punching of a hole to allow a wire to be passed through the label for attaching the label to an article.

The machine is portable and hand-operated which enables a gardener or nurseryman to proceed along rows of plants and supply the proper label for each one as the operation of the machine is rapid and an indestructible light label is furnished by the machine. There is no indelible ink to spread and become indistinguishable as in the common wooden label and if the label has been in soil it can be readily rubbed off and the identifying matter is clearly legible.

The invention is illustrated in the accompanying drawings. Figure 1 is a front view of a machine embodying my invention. Figure 2 is a view of the left side of Figure 1. Figure 3 is a view of the right side of Figure 1. Figure 4 is a back view of the upper part of the machine. Figure 5 is a top view of the embossing machine. Figure 6 is a detail section of the embossing element and its pivot. Figure 7 is a perspective view of a label embossed on the machine.

The machine comprises a jaw 10 which is provided with a handle 11. A second jaw 12 is pivoted at 13 to the first jaw and has a handle 14. The spring 15 or its equivalent forces the handles apart and thus forces the jaws apart as this form provides for one jaw passing through the other at the pivot.

The first jaw 10 has two walls between which is installed an embossing member. The preferred form of embossing member comprises a stiff disc

16 and a thin bendable disc 17 secured to the disc 16. The form shown comprises a pivot screw 18 passing through a block 19 in one arm 20 of the jaw 10 and screwed into the other arm 21 of the jaw. The two discs are arranged to rotate in unison and I show pins 22 securing them together. The discs are spaced apart at their outer areas as at 23 to provide space for the strip 24 to be passed between them. To facilitate the passage of the strip and control its direction the guide-way 25 is installed on the first jaw 10.

The embossing member has the disc 16 and the bendable disc 17 provided with complementary projections and recesses to emboss a strip and on the outside of the disc 16 I place the indicia 26 for identifying the characters underneath and a hole 27 in the wall 21 assists in locating the characters at the embossing point. The disc 16 has slight recesses in its edge for easy handling and also for yieldingly holding the embossing member in place as the recesses engage a spring pin 29 in the end of the jaw 10.

The jaw 11 is provided with a punch 30 that is in register with the hole 27 of the jaw 10. The punch operates to force the character on the disc 17 against the strip and emboss the strip by pressure against a complementary character on the disc 16.

The punch is operated through a slot in the fixed disc 31 which is fastened to the block 19 and acts to prevent excess backward motion or warping of the disc 17.

The feeding device for the strip is mounted on the arms 32 and 33 on the base of the jaw 10. The arms act as bearings for a hand wheel 34 which is secured on a shaft 35 which also carries the feed roller 36 in the form of two discs with pointed peripheries or two resilient drums which engage the top and bottom edges of the strip 24 and feed it through the guide 25. The hand wheel is used in inserting the strip 24 but I prefer to use an automatic feed for spacing the characters evenly on the strip.

The automatic feeding means is exemplified by the construction shown in the drawings. The shaft 35 is shown provided with a ratchet 37 which is operated by a pawl 38. The pawl is pivoted to a lever 39 which is pivoted intermediate its ends to the jaw 10 as at 40. The upper end of the lever is attached to the jaw 12 and moves back and forth as the jaw moves. Such attachment is shown at 41. The pawl is so arranged that it moves the ratchet the distance of one tooth when the jaws move apart and is inopera-

tive for moving the ratchet when the jaws are pressed together.

At a suitable point beyond the punch 30 I may arrange a cutter for severing the strip. The form shown embodies a shear plate 42 on the jaw 10 and a shear plate 43 on the jaw 12. These are arranged below the guide 25 and are used to sever the metal from the strip 24 to form the label 44. A suitable punch 45 may be installed to punch the hole 45 in the label at the same time that it is cut off.

In operating the machine the user inserts the strip between the guide 25 and the feeding wheel 36 and then turns the hand wheel 34 by the thumb until the end of the strip is far enough between the disc 16 and 17 for the first character. The disc then is set at the first character to be embossed. The handles are squeezed to force the jaws together and emboss the strip with this character. The handles are released and they separate under the influence of the spring 15 and the jaws separate. This separation operates the lever 39 and the pawl 37 and the feed wheel rotates to feed the strip one space. The disc 16 is then again set for the next character and this is repeated until the embossing is completed. As it is completed the strip is withdrawn as the feed mechanism is freely rotatable when the pawl is inactive and the strip is reversed and fed in from the other side of the machine between the shears 42 and 43 and cut off by operating the handles.

Various changes can be made in the form and proportion of the parts without departing from the scope of the invention as set forth in the claims.

I claim:—

1. A machine for embossing flat strips comprising a jaw having two walls and a handle, a pair of embossing members rotatably arranged between said walls, one of said members being bendable toward the other and normally spaced therefrom a feeding means on said jaw for feeding a strip between said embossing members, a second jaw pivoted to the first jaw and including a handle, a punch on the end of the second jaw for moving one embossing member toward the other, and a connection between the punch and the feeding means for moving the strip when the punch retreats from the embossing members.

2. A portable embossing machine comprising a jaw having two walls and having laterally projecting arms at the base of one of said walls to form a bearing, a guide on said bearing to support a strip between said walls, an embossing device rotatable between said walls and having a stiff embossing disc and a bendable disc, both discs having complementary embossing figures, said guide being cut away to receive part of said bendable disc, a rotatable feeding roller mounted on said bearing, a second jaw pivoted to the first jaw and including a handle and a punch on the second jaw and disposed so as to force the bendable disc toward the stiff disc, a connection including a pawl and ratchet and operating the feeding roller when the punch retreats the said stiff disc projecting beyond the walls of the first mentioned jaw for easy manipulation.

FREDERICK W. ZIPF.