No. 879,462. PATENTED FEB. 18, 1908.

W. J. GREEN.

BRANDING MACHINE.

APPLICATION FILED JULY 22, 1907.

Fig. 1.

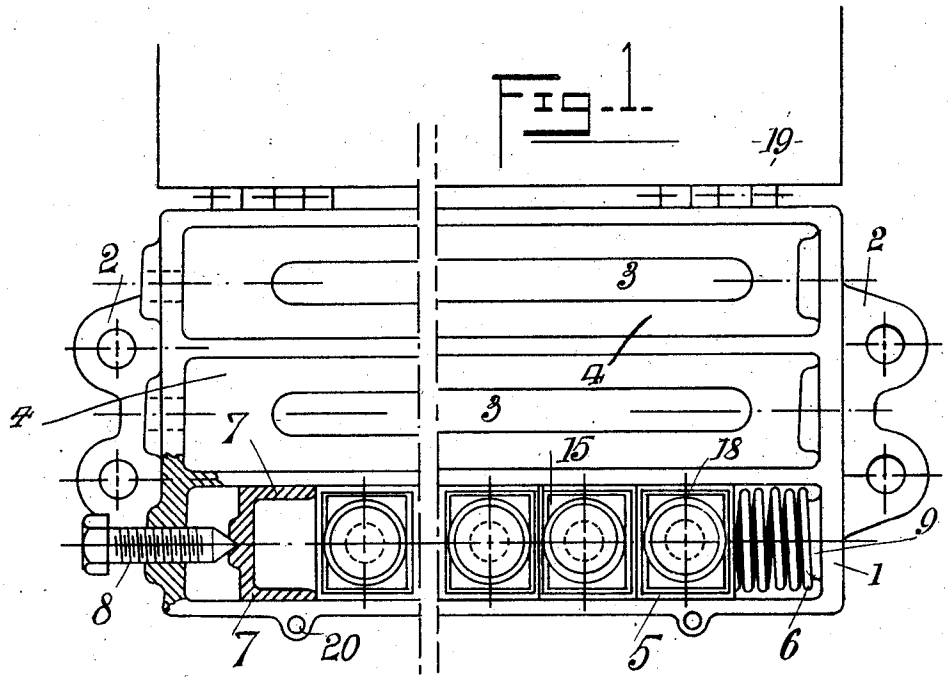
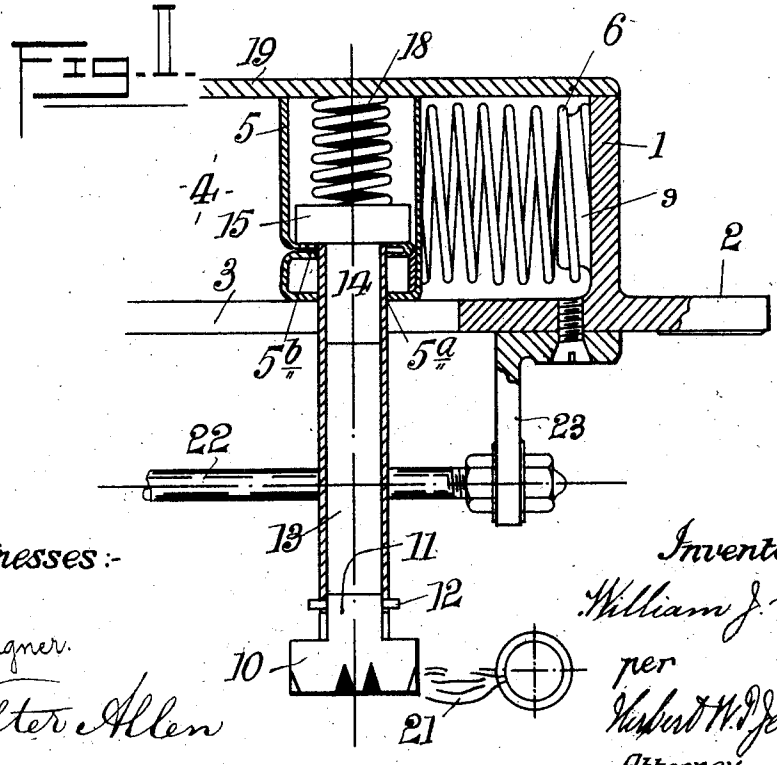


Fig. II.



Witnesses:-

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BRANDING-MACHINE.

No. 879,462. Specification of Letters Patent. Patented Feb. 18, 1908.

Application filed July 22, 1907. Serial No. 385,060.

To all whom it may concern:

Be it known that I, WILLIAM JAMES GREEN, chemist, residing at 36 Lower Marsh, London, S. E. England, have invented certain new and useful Improvements in and Relating to Branding-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to branding machines for boxes, casks and the like and has for its object the provision of means whereby each letter or figure or design is constructed as a complete and independent element with spring pressure so that the said elements may be arranged in any order and in any spacing that may be desired.

Great difficulty has been experienced in the past, in known machines with regard to the simplicity and facility by which a given arrangement or rearrangement of the branding device can be effected and much time has been lost and great inconvenience occasioned in carrying out this particular operation.

To carry my invention into effect, I arrange a frame or frames which may be either movable or otherwise and having channels so arranged to one another as to determine the line spacing of the inscription to be branded. These channels are open to their full width at their upper end while at the lower end a slot is arranged along the whole length through which the branding device can pass. Each branding device is a separate and independent element in itself and consists of a frame or cage of such a size as to be placed in and held by the groove in the frame. The branding device is adapted to slide in the said frame or cage and is spring pressed so as to recede to a more or less extent when the article to be branded is brought into contact therewith. These independent elements are arranged in any order that may be desired and distance pieces of any desired size or shape may be placed between them where spacing is necessary other than that determined by the size of the frames or cages. Means are provided to lock the branding elements tightly in position in the said slots. This locking may be effected by a device setting up end pressure or a cover plate may be arranged on the upper side of the frame so as to be capable of producing a downward pressure on all the cages and distance pieces held in the groove. The stems or shanks of the branding devices may be made tubular so as to minimize the loss of heat through radiation. It will be quite obvious that in such an arrangement as this when any of the branding elements have to be rearranged it is only necessary to remove the locking means when the said elements can be removed from the groove and altered or rearranged as may be thought desirable.

I will now proceed to describe my invention more particularly by means of the accompanying drawings in which:

Figure I. is a plan. Fig. II is a longitudinal section through one end portion of the frame, drawn to a larger scale, and showing a smaller depressing spring than that shown in Fig. I.

In the drawings 1 is the frame carrying the branding elements. It is provided with suitable means of attachment to the operative mechanism, as by lugs 2. A plurality of such frames may of course be employed in a single machine depending upon requirement.

The frame 1, is divided up into channels 4, according to the line spacing required, and which may be either straight curved or other desired shape. The channel 4, is provided with slot 3, formed in its substance which may be common to the series of branding devices as shown or into divided lengths. The channels 4, are open to their full width at their upper end. Into these channels 4, are fitted a series of frames or cages that are preferably made from stamped steel or iron and abut against each other, one being required for each letter or space in the word or sentence branded. These cages 5, are of such size dependent upon the nature of the letter, number or device of the brand they carry and may be strengthened by the formation of a diaphragm 5^b across their diameter as shown, they have a hole 5^a, formed immediately over the slot 3, in the channel 4 of the frame 1. At one end of the frame an expansive spring 6, bears against the end cage 5, and at the other end a metal presser plate 7, is so placed that it tends in conjunction with the set screw 8, to keep the cages in exact tension and position against the spring 6. The spring 6, is prevented from jumping out when a cage is removed by a boss 9, formed in the frame 1. The brand 10, is formed with a shank 11, and has bayonet pins 12. This is fitted into a tubular body 13, having at its extremity a bayonet slot for receiving the corresponding bayonet pins and holding same firmly. This tube

passes through the slot 3, and cage holes 5^a, and receives at its upper end the shank 14, of a square headed button 15, said shank being firmly brazed or otherwise fixed into the tube. Upon the head of the brand 15, is fitted an expansive spring 18, which abuts or bears against the cover 19, of the frame 1. This cover may be secured to the frame as at 20, or the cover may be made in sections each fitting over an independent channel.

The operation of my invention is as follows:—The composite branding device is fitted to the operative machine and a Bunsen flame 21, or other heating device applied to the brands in the usual manner. The article to the branded is placed beneath and the branding device brought into contact therewith. Any unevenness on the surface of the article causes the branding springs 18, to be compressed until all the brands are in contact. To upset the type, all that is necessary is to slacken the adjustment screw 8, allowing the cages to loosen, when they may be withdrawn and others inserted.

In some cases I may provide an additional guide for the tubular brand stems, consisting of lateral or transverse rods 22, as shown, secured at their ends to lugs 23 on frame 1. It will be observed from the foregoing that the branding elements may be arranged in any order and with any desired spacing in a very short time, and is a great improvement on known and existing methods in the same class. Although the brand is a distinct and separate piece of metal from its stem, I have found that having this latter made from tube greatly conserves the heat, and admits of a more rapid branding than heretobefore.

I claim:—

1. In a branding machine, the combination, with a frame provided with a bottom having a slot in it, of a series of cages adjustable longitudinally in the said frame, means for holding the said cages in position, a series of branding stamps provided with shanks which are slidable vertically in the said cages and slot, and a series of springs for depressing the said stamps.

2. In a branding machine, the combination, with a frame provided with a series of guide channels, each said channel being provided with a slot in its bottom portion, a cover at the top of the said frame, series of cages adjustable longitudinally in the said channels, means for holding the said cages in position, branding stamps provided with shanks which are slidable vertically in the said cages and slots, and springs interposed between the said shanks and cover for depressing the said stamps.

3. In a branding machine, the combination, with a frame having a slot in its bottom portion, of a cage arranged in the said frame and provided with a bottom and a diaphragm each having a guide hole in it, a branding stamp provided with a shank which is slidable vertically in the said guide holes and slot, and a spring for depressing the said stamp.

4. In a branding machine, the combination, with a frame having a slot in its bottom portion, of a cage arranged in the said frame, a branding stamp provided with a tubular shank which is slidable vertically in the said cage and slot, and a spring for depressing the said stamp.

5. In a branding machine, the combination, with a frame provided with a slot in its bottom portion, of a rectangular cage arranged in the said frame, a branding stamp provided with a shank which is slidable vertically in the said cage and slot, a rectangular guide head secured to the said shank and engaging with the said cage, and a spring for depressing the said stamp inclosed in the said cage and bearing on the said head.

In testimony whereof I affix my signature, in presence of two witnesses.

WILLIAM JAMES GREEN.

Witnesses:
FRANCIS HERON ROGERS,
H. D. J. AMESA.