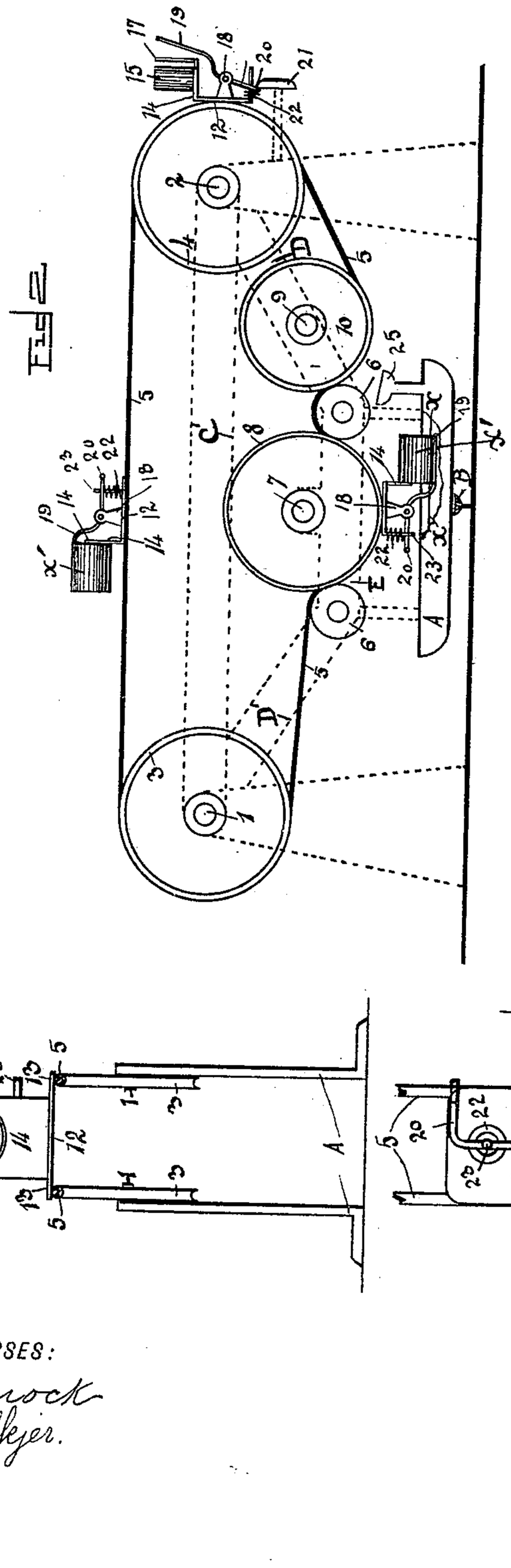
No. 622,271. Patented Apr. 4, 1899.

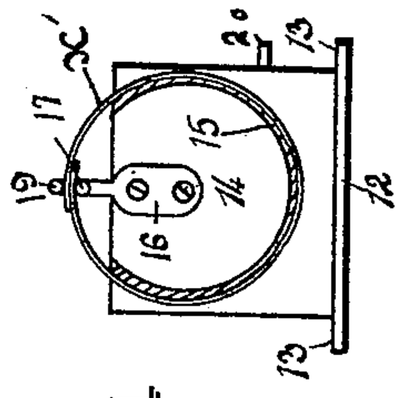
W. RUBIN.

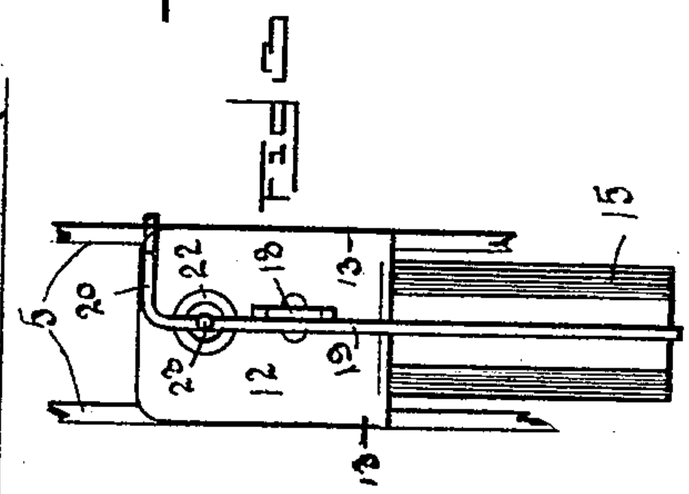
SEAMING MACHINE.

(Application filed Aug. 17, 1897.)

(No Model.)







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SEAMING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 622,271, dated April 4, 1899.

Application filed August 17, 1897. Serial No. 648,574. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM RUBIN, residing at South Omaha, in the county of Douglas and State of Nebraska, have invented certain useful Improvements in Seaming-Machines; and I do hereby declare that the following is 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, reference being had to the accompanying drawings, which form a part of this specification.

This invention has relation to an improvement in seaming-machines.

The object of my invention is to provide a device by means of which ordinary can-blanks may be held and clamped in proper position in traveling to the soldering-bath and then be promptly released.

In the accompanying drawings, Figure 1 shows a broken detached end view of one of the carrying-wheels, disclosing one of the carriers in position and having the remaining portions removed to more distinctly disclose the position of the carrier. Fig. 2 shows an end view disclosing the supporting-standard in outline and illustrating the position of the carriers. Fig. 3 shows a top view of one of the carriers detached, while Fig. 4 shows an end view of a detached carrier, showing a can-blank in position.

The aim of my invention is more particularly to provide a simple device by means of which the can-blanks may be fed to the soldering-bath and be automatically released after they have been soldered. In the furtherance of this object I provide two ordinary wheels 3 3, which are mounted upon stub-shafts 1 1 and are held within suitable braces A, referring now to Fig. 1, which braces have only been shown in outline in Fig. 2. Extending from these braces A, which are used in sets, are two ordinary brace-bars C, which are shown in dotted lines in Fig. 1 and from which depend the bars D D, which in turn are secured to a central bar E, running parallel to the bar C, as is shown in dotted lines in Fig. 1. As this frame A can be made in various shapes, I do not wish to confine myself to any particular supporting-frame, and hence I have simply shown the same in dotted lines. At a point opposite the wheels 3 are positioned two similar wheels 4 4 in alinement with said wheels 3 3, said wheels 3 and 4 being grooved to accommodate the cable 5. At a point below and between the wheels 3 3 and 4 4 are two grooved wheels 8 8, which are shown as mounted within the dotted center bar E in Fig. 2. At a point between the wheels 4 4 and 8 8 are again positioned two grooved pulleys 10 10, these pulleys being mounted upon stub-shafts 9 9, which shafts are mounted in the downwardly-extending portion of the frame as is shown in dotted lines, the pulleys 8 8 being mounted upon the stub-shaft 7. Upon either side of the wheels 8 are two sets of flat pulleys 6 6, over which the cable passes, as is shown, so that this endless cable, which, it should be understood, could be in the form of a belt or chain, is used in sets of twos, each cable passing over the main grooved pulleys 3, 4, and 8, the pulley 10, and passing over the flat pulleys 6 6.

Secured to the cables 5 5 are a number of carriers, comprising the base-plate 12 and the upwardly-extending portion 14, which are secured to the two cables 5 5, as is shown in Figs. 1 and 3. It should be here stated that the upwardly-extending portion 14 is of a width less than the base-plate 12, so that these carriers can pass between the rollers 6 6, which are used in pairs and which rollers slide over the deck portion, (marked 13,) as is shown. Secured to the upwardly-extending plate 14 is a semicircular former 15, which is of a size to accommodate the blank to be soldered and which former extends in a direction opposite to the base-plate 12. Extending upward from the plate 14 and in the same direction with the former 15 is an L-shaped bar 16, which bar is placed at a point in line with the circle formed by the former 15, as is shown in Fig. 1. At a point opposite the plate 14 is secured an upwardly-extending stem 18, to which stem is secured a lever 19, having an angular extension 20, and through which lever 19 passes an upwardly-extending bar 23, as is shown in Fig. 3, which bar 23 is adapted to accommodate a spring 22, so that this lever 19 is normally forced upon the bar 16 and in conjunction therewith acts in the form of a clamp, the spring 22 normally forcing this bar 19 upon the bar 17. Situated within the path of the projecting stem 20 is

a bar 21, as is shown in Fig. 2, which is adapted to depress the rear end of the lever 19 to open the same, as is shown in Fig. 2, and it is at this instant when the lever 19 is in its open position that the blank is slipped upon the former by the operator. As soon as the lever 19 escapes the bar 21, which bar is in the form of a striker, the lever 19 promptly closes upon the blank, as is shown in Fig. 4, and holds the same in such a closed condition until the carrier is brought into an inverted position in passing over the wheel 8, below which is secured the soldering-bath A, which bath is provided with the solder *x*, kept in a flowing condition by means of the jet B. The striker 21 is simply a bar positioned in the path of the outwardly-extending lever 20, so that this lever 20 is depressed to open the normally-closed lever 19. The striker is secured to an ordinary bar. (Shown in dotted lines in Fig. 2.) The tinned can-blank as its passes through this bath is soldered and is carried out and upward over the wheels 6, positioned between the wheels 8 and 10, and as the carriers pass below the wheels 10 a second striker 23 is engaged, this second striker being in such a position that the can is held in an inclined position, so that the instant the lever 19 is opened the can drops off and is collected below the machine, the carrier instantly being closed and being carried in this empty closed condition until the first striker 21 has been reached, where a new blank is fed to the carrier. This operation is repeated. It is of course understood that the former 15 is changed to meet the size of the various cans to be soldered and can be of any suitable shape. So, also, can any suitable number of these carriers be used, though in the drawings the machine has been shown with but three carriers, one of which is shown as open after receiving the blank, one being shown in a closed position carrying the blank *x'*, the third one being shown as closed and with the blank X' within the soldering-bath, it being understood that the uniting edges of the blank come between the clamping-bars 17 and 19.

The device is simple of construction and readily operated.

Having thus described my said invention, what I claim as new, and desire to secure by United States Letters Patent, is—

1. The combination with a suitable supporting-frame, of two sets of pulleys in alinement, a third set of pulleys in alinement below said two main sets, guiding-wheels upon each side of said third set of pulleys and a fourth set of guiding-pulleys below said main pulleys, two endless cables, each engaging one set of said pulleys, carriers upon said cables, said carriers comprising a base-plate, a former secured to said base-plate, a spring-actuated clamp working in conjunction with said former, said clamp being normally in a closed position, a striker in the path of said carriers to open said clamp at one point, a soldering-bath so positioned that said carriers partly pass through the same and a second striker positioned at a point adapted to be engaged by said clamp after leaving said soldering-bath to release the blank, as and for the purpose set forth.

2. The combination with the wheels, 3 and 4, used in sets of twos, the wheels, 8, positioned below and centrally between said wheels, 3 and 4, the pulleys, 6, upon either side and below said pulleys, 8, the pulleys, 10, between said pulleys, 4 and 8, the endless cables, 5, passing over said pulleys, carriers mounted upon said cables, said carriers embodying the following instrumentalities, to wit: the base-plate, 12, the upwardly-extending plate, 14, of a width less than said base-plate, 12, the mutilated formers, 15, the bar, 16, secured thereto, and the spring-actuated clamping-lever, 19, provided with the outwardly-extending stem, 20, arranged substantially as and for the purpose set forth.

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

WILLIAM RUBIN.

Witnesses:
GEORGE BRADLEY,
FREDERICK KEELER.