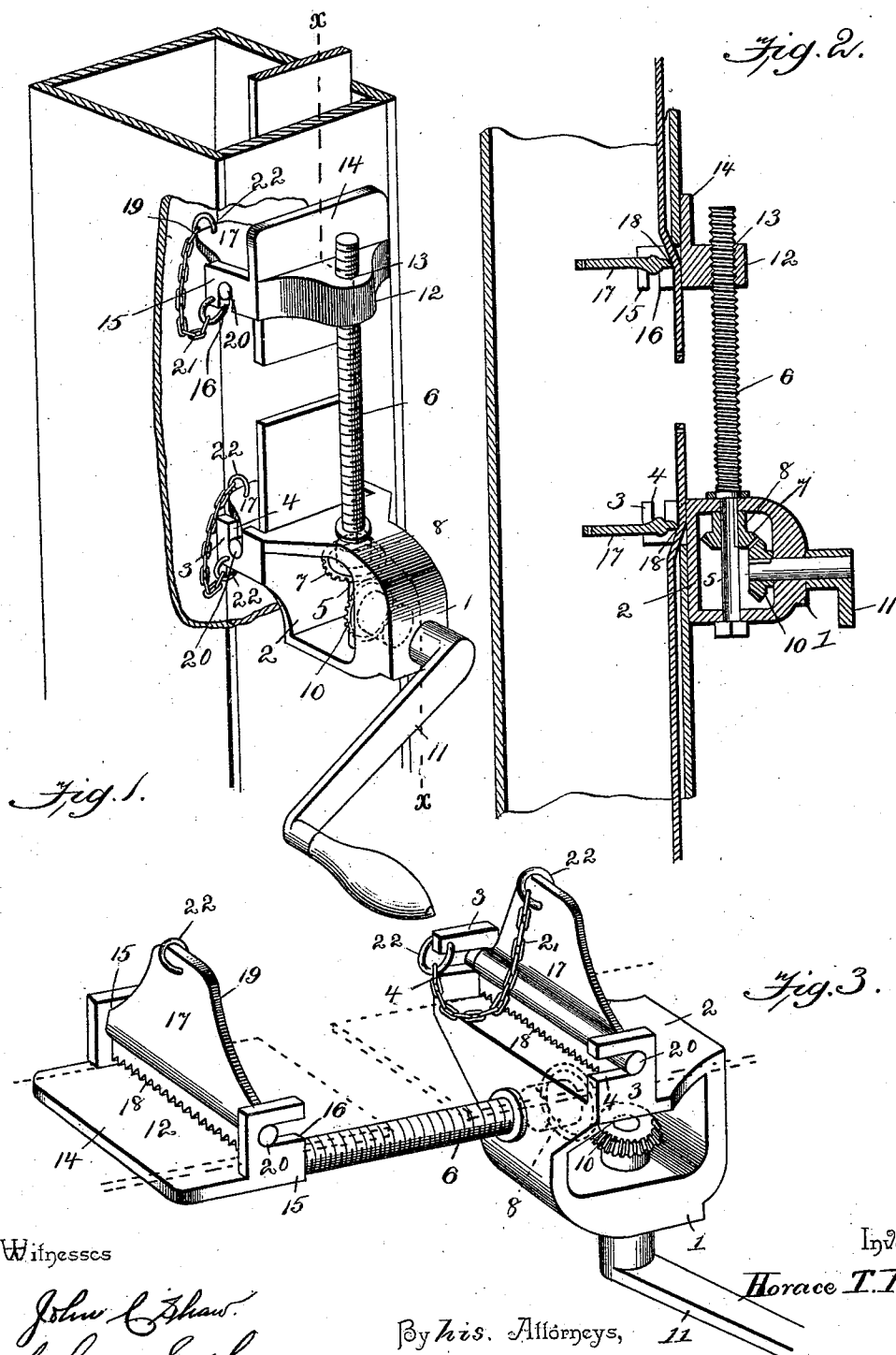


(No Model.)

H. T. ROGERS.
BELT CLAMP.

No. 499,146.

Patented June 6, 1893.



Witnesses

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UNITED STATES PATENT OFFICE.

HORACE TOM ROGERS, OF LOUISVILLE, KENTUCKY.

BELT-CLAMP.

SPECIFICATION forming part of Letters Patent No. 499,146, dated June 6, 1893.

Application filed February 6, 1893. Serial No. 461,198. (No model.)

To all whom it may concern:

Be it known that I, HORACE TOM ROGERS, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful Belt-Clamp, of which the following is a specification.

This invention relates to belt clamps, and has for its object to provide a new and improved device for tightening belts, especially elevator-bucket belts, and giving them the required tension, or to be used in connecting the two ends of a belt; and with this end in view the invention consists of the construction and arrangement of the parts thereof as will be more fully hereinafter described and claimed.

In the drawings: Figure 1 is a perspective view of an elevator belt box, showing the belt therein and the improved device applied thereto and as being operated to draw the two ends of the belt together, the parts being broken away. Fig. 2 is a longitudinal vertical section on the line $x-x$ of Fig. 1. Fig. 3 is a perspective view of the clamp detached.

Similar numerals of reference indicate corresponding parts in the several figures of the drawings.

Referring to the drawings, the numeral 1 designates a hollow head, having oppositely-situated open sides and upper and lower closed ends. The said head is also formed with an inner flat plate 2, that closes over the same and has, at the upper end thereof, a pair of ears 3, extending at right angles therefrom and formed with slots 4, that open inward into the same from the upper edges thereof, as shown positioned in Fig. 1.

Extending longitudinally through the head 1, is a shaft 5, having the greater portion thereof screw-threaded as at 6, but that portion of the shaft which is located within the head 1 is smooth and has fixed thereon a beveled gear 7, with an elongated sleeve 8, formed with a circumferential groove 9, that is engaged by the wall of a circular opening in the upper end of the said head to thereby form a bearing for the said shaft, it being understood that the said beveled gear 7 is keyed to the latter. The beveled gear 7 is engaged by a similar gear 10, disposed at a right angle

thereto, and has attached to the same a crank or operating-handle 11, by means of which the gear 10 is operated to actuate the gear 7, with which it meshes and consequently operates the said shaft 5.

Adjustably mounted on the screw-portion 6 of the shaft 5 is another head 12, having a screw-threaded apertured lug 13, through which the said portion 6 of the shaft has movement, and is also provided with a flat plate 14, having ears 15 projecting inwardly therefrom at right angles thereto with open slots 16 extending through the lower edges thereof. The ears 15, with their slots 16, are in all respects similar to the ears 3 with their slots 4, in connection with the head 1, and it will be observed that the slots open outwardly from each pair of ears 3 and 15 in such manner as to have their entrance portions opposingly situated.

In each pair of ears 3 and 15 is loosely and removably mounted a clamp 17, having a lower or outer roughened or serrated biting-edge 18, and the opposite end of the edge reduced in width to form an operating-handle or grip 19. The opposite ends of the clamp are formed with trunnions 20, that have bearing in the slots of the ears 3 and 15, in each instance, but are freely movable when it is desired to disconnect the clamp, but when it is necessary to hold the clamp in connection with the ears it will be retained in position by the tension of the belt thereon, it being observed that said tension will be exerted in such a direction as to draw the trunnions, and consequently the clamp carrying the same, farther into the slots.

As the clamps are loosely supported by the ears, it is necessary to provide some means of holding them attached to the device to prevent the same from becoming lost, and therefore a chain is secured to the grip-portion of each clamp, as at 21, by means of rings 22, and to one of the adjacently-situated ears, it being understood that the chain in each instance is sufficiently long as to permit the free manipulation of the clamp.

In setting the device up in proper position, it is secured to one side of an elevator box 22, having a suitable opening therein through which the ears carrying the clamps are projected, as shown in Fig. 1, and in this posi-

tion the plates 2 and 14 bear firmly against the side of the elevator box and hold the device in position in a proper manner.

It will be understood that this device is especially intended for use with elevator belts, and to hold the belt in perpendicular position during the operation of tightening or fastening the same.

In operating the device the opposite ends of the belt are first put in position on the machine and rest against the flat plates 2 and 14, that form tables therefor and lie between the ears 3 and 15. The clamps are then inserted in position and drawn tightly against the belt to hold the two parts thereof in connection with the machine. The crank-handle is then operated to turn the shaft 5, and the screw-threaded portion 6 thereof is caused to draw the head 12 toward the head 1, and thereby clamp the two parts of the belt in close position either for the purpose of tightening the same or joining the said ends.

It will be understood that in making the attachment to the opposite ends of the belt the head 12 is adjusted as far from the head 1 as possible, in order to conveniently make the attachment of the said head 12 with the opposite belt-end. It will also be understood that the plates 2 and 14 will be constructed of varying widths and sizes in order to ac-

commodate different sizes of belts, but it will be seen that one machine or device can be employed with varying sizes of belts if the size thereof is of such dimension that in each instance a thorough gripping-action is provided by the clamps.

Having described the invention, what is claimed as new is—

In a device of the character set forth, the combination of the two heads, one of which has a screw-threaded shaft extending therefrom and operating mechanism for revolving said shaft, and the other movably mounted on said shaft, each of said heads having a pair of ears extending at right angles outwardly therefrom with slots therein that open outwardly from the edges of the ears toward each other, and flat plates adjacent to said ears, and clamps loosely mounted in and freely removable from the said ears and having chains secured thereto and to adjacent ears to hold the said clamps in attachment with the device, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HORACE TOM ROGERS.

Witnesses:

JOSEPH L. ROGERS,
H. STUCKY.