

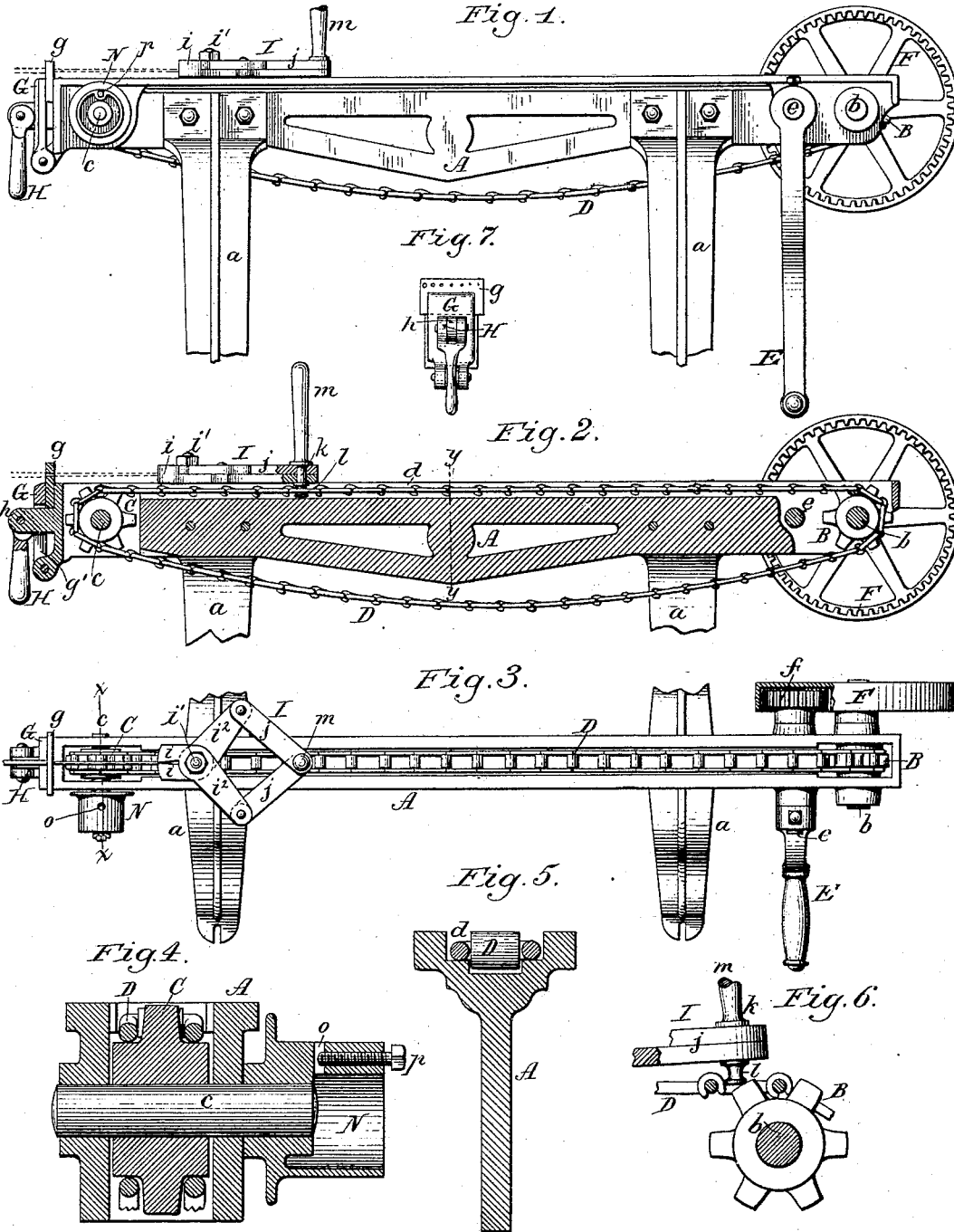
(No Model.)

C. A. SVENSSON.

DRAW BENCH.

No. 342,474.

Patented May 25, 1886.



Theodore L. Popp
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UNITED STATES PATENT OFFICE.

CLAES A. SVENSSON, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF TO
WILLIAM W. OLIVER, OF SAME PLACE.

DRAW-BENCH.

SPECIFICATION forming part of Letters Patent No. 342,474, dated May 25, 1886.

Application filed August 13, 1885. Serial No. 174,355. (No model.)

To all whom it may concern:

Be it known that I, CLAES A. SVENSSON, of the city of Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Draw-Benches, of which the following is a specification.

This invention relates to an improvement in that class of draw-benches which are used by jewelers for drawing wire, and which consists, essentially, of a stationary frame, a draw-plate secured thereto, and an endless chain, whereby the wire is drawn through the plate.

The object of my invention is to improve the construction of the machine, so as to render it more convenient in use and more rapid in its operation; and my invention consists to that end of the improvements which will be hereinafter fully set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of my improved draw-bench. Fig. 2 is a longitudinal sectional elevation of the same. Fig. 3 is a top plan view of the same. Fig. 4 is a vertical cross-section in line *x x*, Fig. 3, on an enlarged scale. Fig. 5 is a vertical cross section in line *y y*, Fig. 2, on an enlarged scale. Fig. 6 is a sectional elevation of the head-pulley of the endless chain, illustrating the manner of disconnecting the gripping-tongues from the chain. Fig. 7 is an elevation of the rear side of the machine.

Like letters of reference refer to like parts in the several figures.

A represents the stationary frame of the machine, provided with legs *a*, by which it is supported on the floor; or, if preferred, it may be provided with brackets, by which it can be secured to the wall.

B represents the head or driving chain wheel or pulley secured to a horizontal shaft, *b*, which is journaled in the frame A, at one end thereof; and C is the driven chain wheel or pulley secured to a horizontal shaft, *c*, which is journaled in the frame A, at its opposite end.

D is an endless drive-chain, which runs around the wheels B and C; and *d* is a depressed longitudinal way formed in the upper side of the frame A, for supporting and guiding the upper portion of the drive-chain.

e represents the driving-shaft journaled in the frame A, near the head-wheel B, and provided with a pinion, *f*, which gears into a wheel, F, mounted on the shaft *b*. The shaft *e* is provided with a hand-crank, E; or it may be rotated by power, if preferred.

g represents the perforated draw-plate, which is clamped against the rear end of the frame A by a hinged plate, G, and an eccentric clamp or cam, H. The plate G is pivoted at its lower end to the frame A, and provided with an opening, *g'*, through which projects a lug, *h*, formed at the rear end of the frame A. The cam H is pivoted to the lug *h*, so as to press the plate G against the draw-plate *g*, and the latter against the rear end of the frame, whereby the draw-plate is securely held in place, while it can be readily removed upon releasing the cam H.

I represents the gripping tongues, which seize the end of the wire, and are connected with the drive-chain D. The tongues I consist of two gripping-jaws, *i i*, which are pivoted together by a bolt, *i'*, and which are provided with outwardly-extending arms *i''*. The latter are attached to links *j*, which are connected at their forward ends by a vertical bolt, *k*. This bolt is provided below the link *j* with a stud, *l*, which engages in one of the links of the drive-chain, so that the latter draws the tongues I over the frame A, toward the head thereof, the tongues riding on the smooth upper surface of the frame and drawing the wire through the draw-plate. The bolt *k* is provided above the links *j* with a handle, *m*, for conveniently taking hold of the tongues.

Upon placing the tongues on the frame A, with the stud *l* in one of the links of the drive-chain and the end of the wire between the jaws *i*, the draft of the chain tightens the jaws on the wire and causes the wire to be drawn through the draw-plate. When the tongues I arrive at the head of the machine, one of the sprockets of the head-wheel B strikes against the stud *l* and lifts the latter out of the chain or link in which it was engaged, as represented in Fig. 6, thereby disengaging the tongues automatically from the chain.

N represents a spool upon which the fin-

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ished wire is wound, and which is secured to the shaft *c* of the driven wheel C on the outside of the frame A. The spool N is provided with an opening, *o*, in which the wire is inserted, and in which it is clamped by a set-screw, *p*.

The spool N is turned, for the purpose of winding the wire upon the same, by the endless chain running around the wheels B and C. The tongues can be engaged with the drive-chain at any desired point on the top of the frame A, between the wheels B and C, and they can also be quickly disengaged from the drive-chain, when desired, before reaching the head of the machine.

I claim as my invention—

1. The combination, with the frame A, of chain-wheels B C, journaled in said frame, a draw-plate attached to said frame, an endless drive-chain running around the wheels B and C, and gripping-tongues I, composed of pivoted jaws *i' i'*, connected at their forward ends by links *j*, and provided with a projection, *l*,

whereby the tongues are attached to the drive-chain, thereby closing the jaws by the draft of the chain, substantially as set forth.

2. In a draw-bench, the combination, with the frame A, of the draw-plate *g*, hinged plate G, and pivoted cam H, substantially as set forth.

3. In a draw-bench, the combination, with the frame A, provided with the lug *h*, of the draw-plate *g*, the hinged plate G, provided with an opening, *g'*, and the cam H, pivoted to the lug *h*, substantially as set forth.

4. In a draw-bench, the combination, with the frame A, provided with wheels B and C and the endless drive-chain D, of the spool N, secured to the shaft of the wheel, C, substantially as set forth.

Witness my hand this 20th day of July, 1885.

CLAES A. SVENSSON.

Witnesses:

JNO. J. BONNER,
CARL F. GEYER.