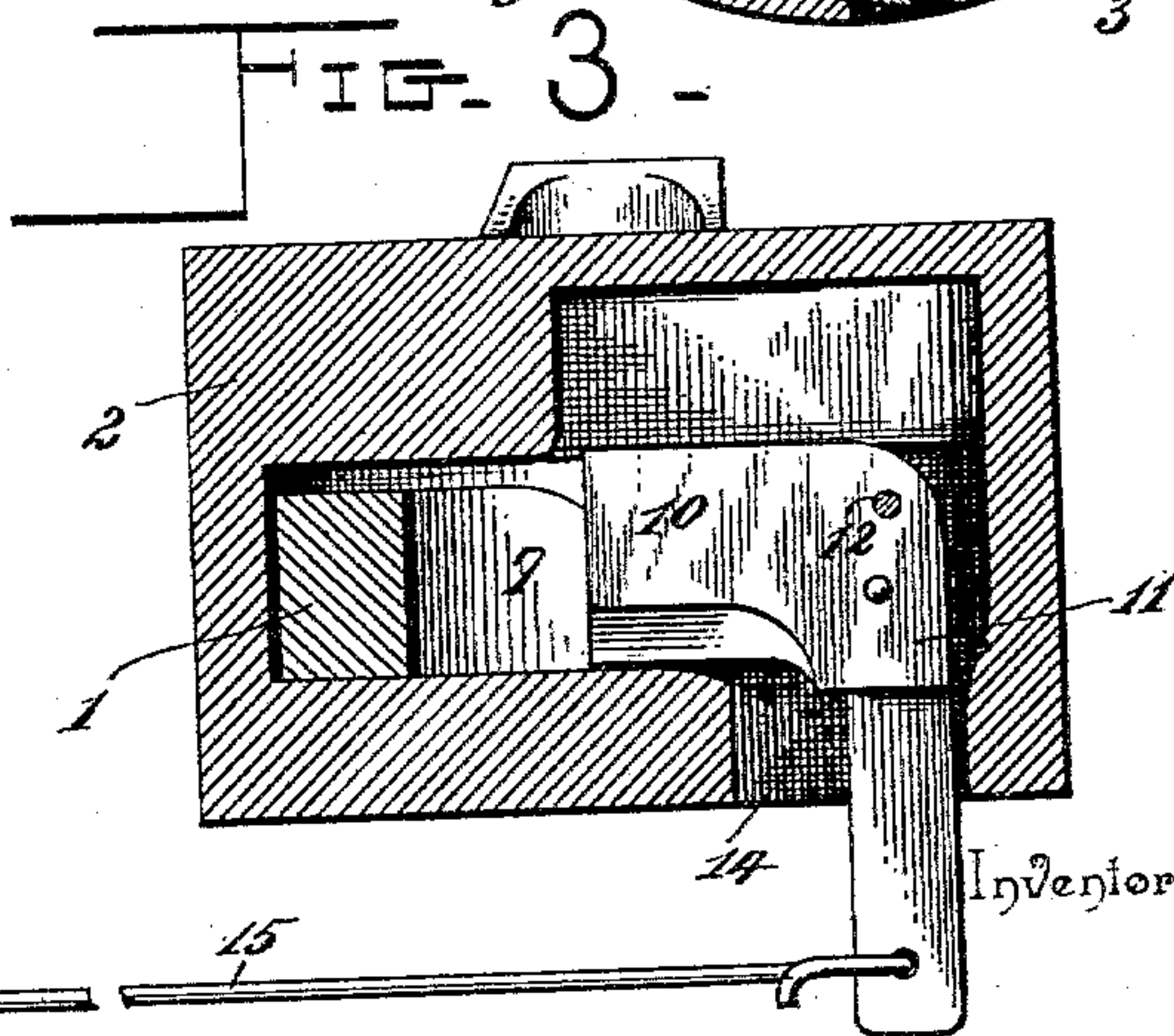
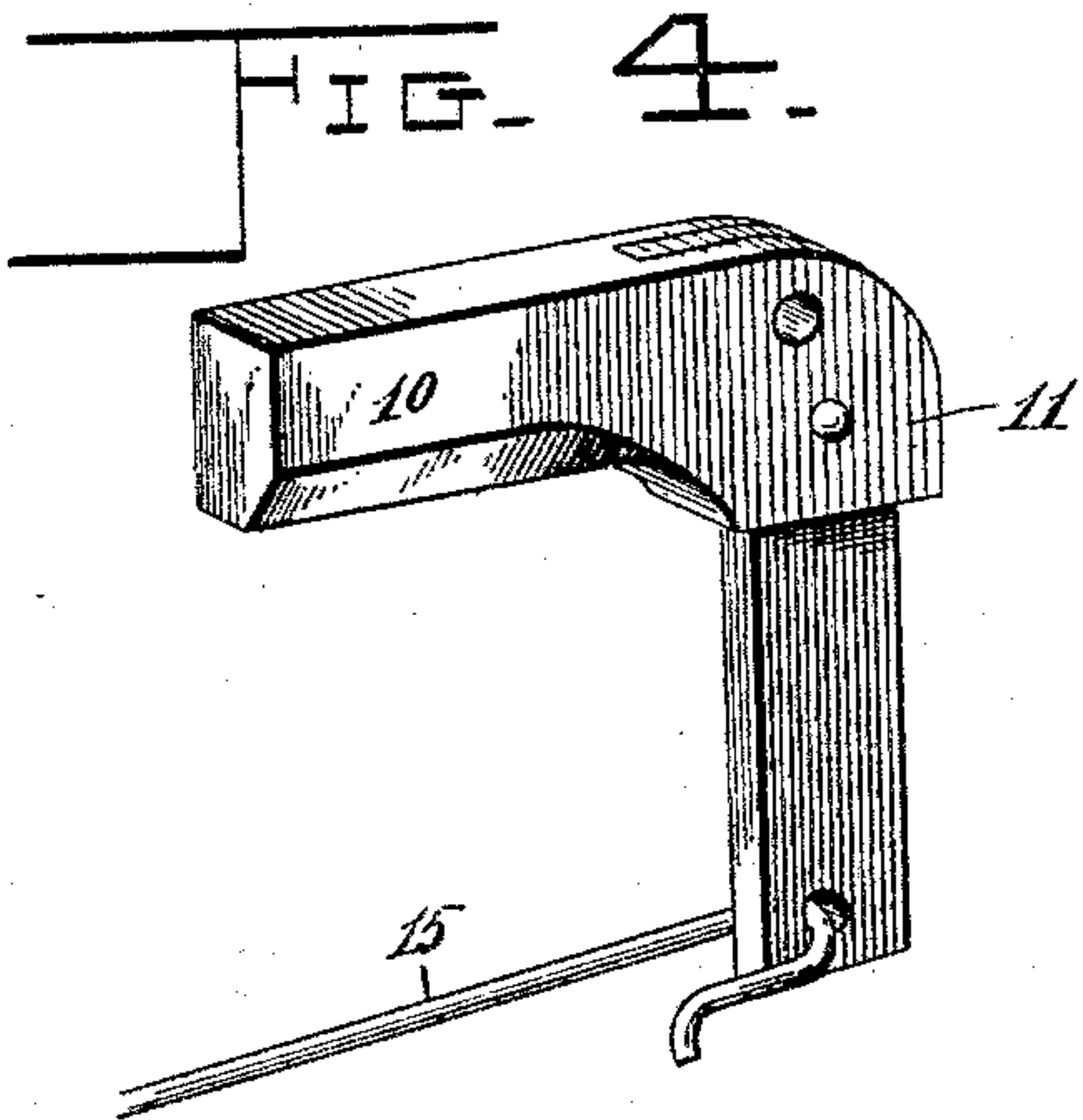
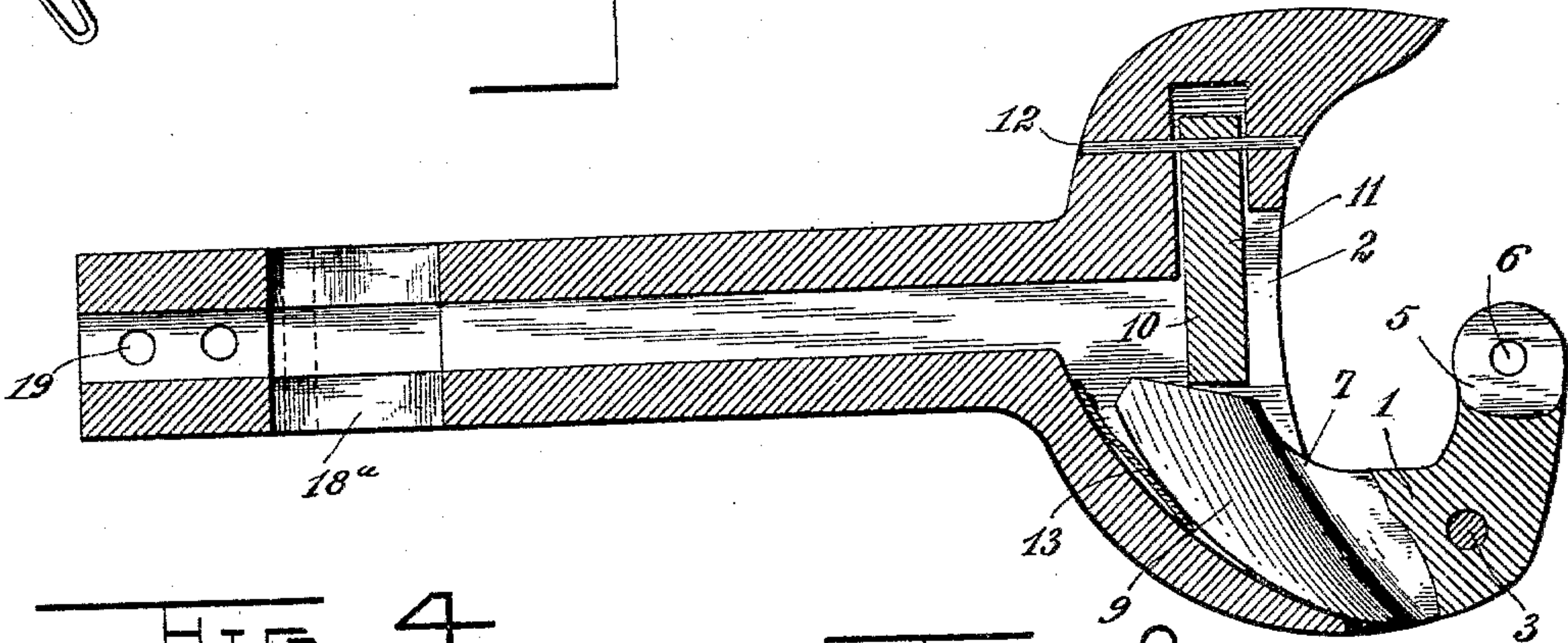
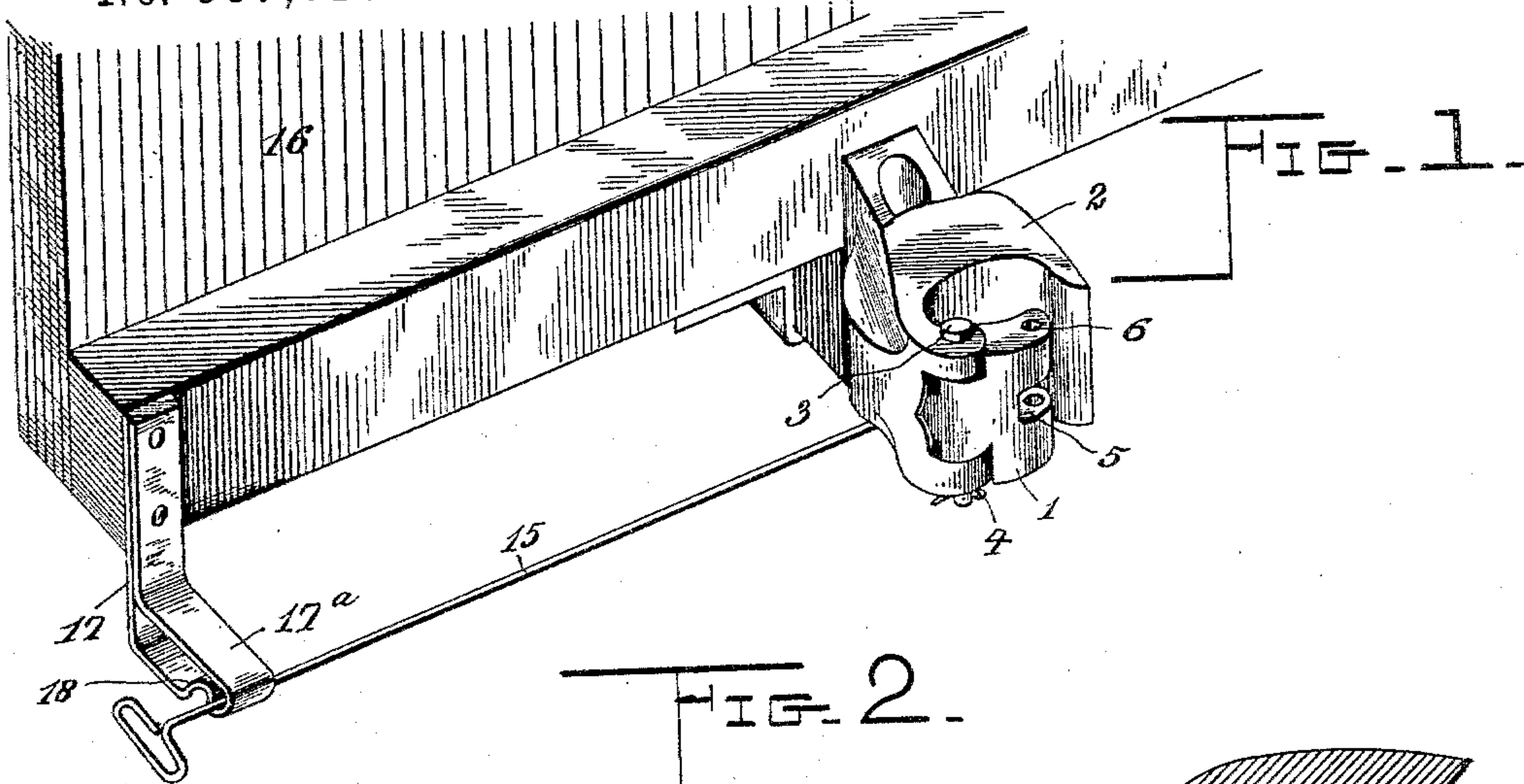


(No Model.)

J. LINDEN.
CAR COUPLING.

No. 597,615.

Patented Jan. 18, 1898.



Witnesses
John F. Schuffert
J. F. Riley

By his Attorneys,

John Linden.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JOHN LINDEN, OF CHICAGO, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 597,615, dated January 18, 1898.

Application filed September 22, 1897. Serial No. 652,619. (No model.)

To all whom it may concern:

Be it known that I, JOHN LINDEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have
5 invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

The object of the present invention is to
10 improve the construction of car-couplings of the Janney type, more especially the mechanism for locking and releasing the knuckle, and to provide a car-coupling which will be closed at the top and sides to prevent the
15 accumulation of ice or other matter which might interfere with the operation of it.

A further object of the invention is to provide a car-coupling adapted to couple automatically and capable of being readily un-
20 coupled without going between cars.

Another object of the invention is to provide an operating mechanism for releasing the knuckle which will not interfere with the longitudinal play of the draw-head.

25 The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

30 In the drawings, Figure 1 is a perspective view of a car-coupling constructed in accordance with this invention and shown applied to a car. Fig. 2 is a horizontal sectional view. Fig. 3 is a transverse sectional view. Fig. 4
35 is a detail perspective view of the weighted bell-crank-locking lever.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

40 1 designates a knuckle pivoted to a draw-head 2, at one side thereof, in the usual manner by a knuckle-pin 3, which is secured in place by a split key 4, passing through a perforation of the lower end of the knuckle-pin
45 and located beneath the draw-head. The knuckle is provided with a slot 5 and perforations 6 to enable it to receive an ordinary link and pin, and its arm 7 is beveled at its inner or rear face at 9 to enable it to engage
50 and lift a weighted horizontal arm 10 of a bell-crank lever 11.

The bell-crank lever 11, which is fulcrumed

at its angle on a longitudinal pin or pivot 12, is disposed transversely of the draw-head within the same, and its horizontal arm 10 is
55 beveled at its lower edge at its front face to enable it to be readily lifted by the arm of the knuckle. The end of the horizontal arm 10 of the lever abuts against the front or outer face of the arm of the knuckle when the lat-
60 ter is closed and locks it in its closed position, and it is adapted to be swung upward out of engagement with the knuckle to release the same, which is automatically thrown open by a spring 13 when released. The other arm of
65 the bell-crank lever depends through a slot 14 of the bottom of the draw-head and is connected with an operating-rod 15, disposed transversely of a car 16 and having its outer end supported by a bracket 17. The sides
70 and top of the draw-head are closed, as illustrated in the accompanying drawings, and accumulation of ice and other matter which might interfere with the operation of the car-coupling is thereby prevented.
75

The operating-rod 15, which is provided at its outer end with a handle-loop, is adapted to be drawn outward to swing the weighted arm of the bell-crank-locking lever upward, and the bracket, which is provided with a
80 horizontal loop 17^a, permits the inner end of the rod to have sufficient play or swing to permit the longitudinal play of the draw-head. The bottom of the loop is provided near its outer end with an upward bend 18,
85 forming an outer eye, which is adapted to receive the operating-rod and hold the same in convenient position for instant use.

The shank or draw-bar of the draw-head is provided with a horizontal slot 18^a and ver-
90 tical perforations 19, and its lower face is recessed in order to adapt it to be readily connected with the various forms of draft mechanism.

The invention has the following advantages: The car-coupling is automatic in operation and couples and uncouples without
95 necessitating a train-hand going between cars. The operating mechanism is exceedingly simple and is unaffected by the longitudinal play of the draw-head. It dispenses
100 with chains and other lifting mechanism for raising a locking-pin and prevents injury to such rigging resulting from its connection to

the draw-head and the car-body. The sides and top of the draw-head are closed, so that moisture is excluded and the accumulation of ice is prevented.

5 Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

10 1. In a car-coupling, the combination of a draw-head, a knuckle, a locking-lever engaging the knuckle, the bracket designed to be mounted on the car and provided with a horizontal loop having an upwardly-extending
15 bend at its bottom to form an outer eye, and a transverse operating-rod arranged in the loop of the bracket and connected with the locking-lever, substantially as and for the purpose described.

20 2. In a car-coupling, the combination of a draw-head, a knuckle pivoted to the same at one side thereof, a transversely-disposed bell-crank lever fulcrumed at its angle within the draw-head at the opposite side thereof, and
25 having one arm beveled at the lower front edge and arranged to be lifted by the arm of the knuckle and adapted to engage the same,

said lever having its other arm extending through the bottom of the draw-head, and operating mechanism connected with the depending arm of the lever, substantially as described. 30

3. In a car-coupling, the combination of a draw-head, a knuckle, a transversely-disposed bell-crank lever fulcrumed within the draw-head and having one arm arranged to engage the arm of the knuckle, the other arm of the lever being extended through the bottom of the draw-head, a bracket designed to be
40 mounted on a car and provided with a horizontal loop having an upwardly-extending bend at its bottom to form an outer portion or eye, and an operating-rod arranged in the loop of the bracket and connected with the depending arm of the lever, substantially as
45 described.

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

JOHN LINDEN.

Witnesses:

FRANK HELANDER,

GUST. HORLIN.