

Patented May 3, 1892.

FIG. 1.

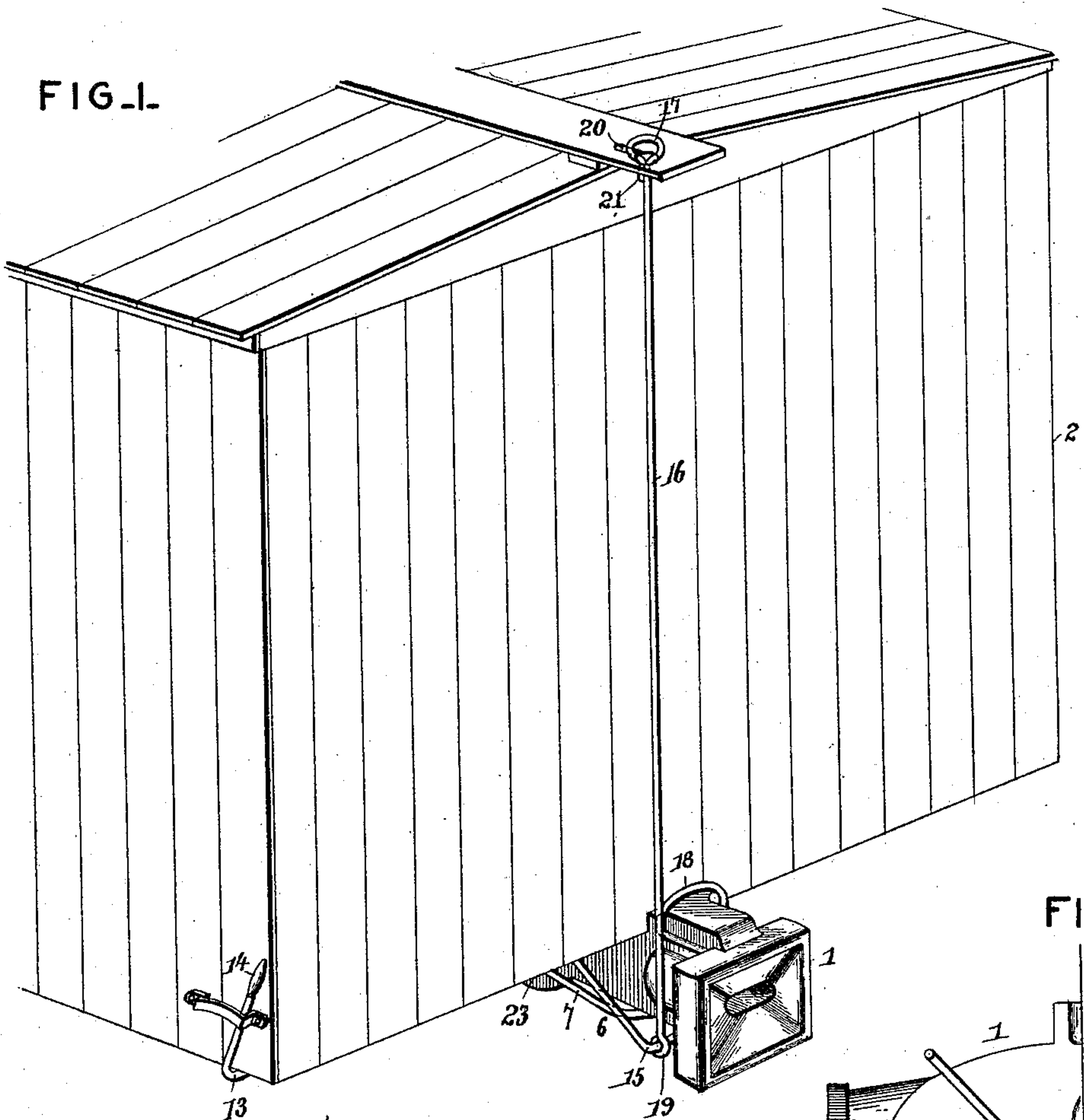


FIG. 4-

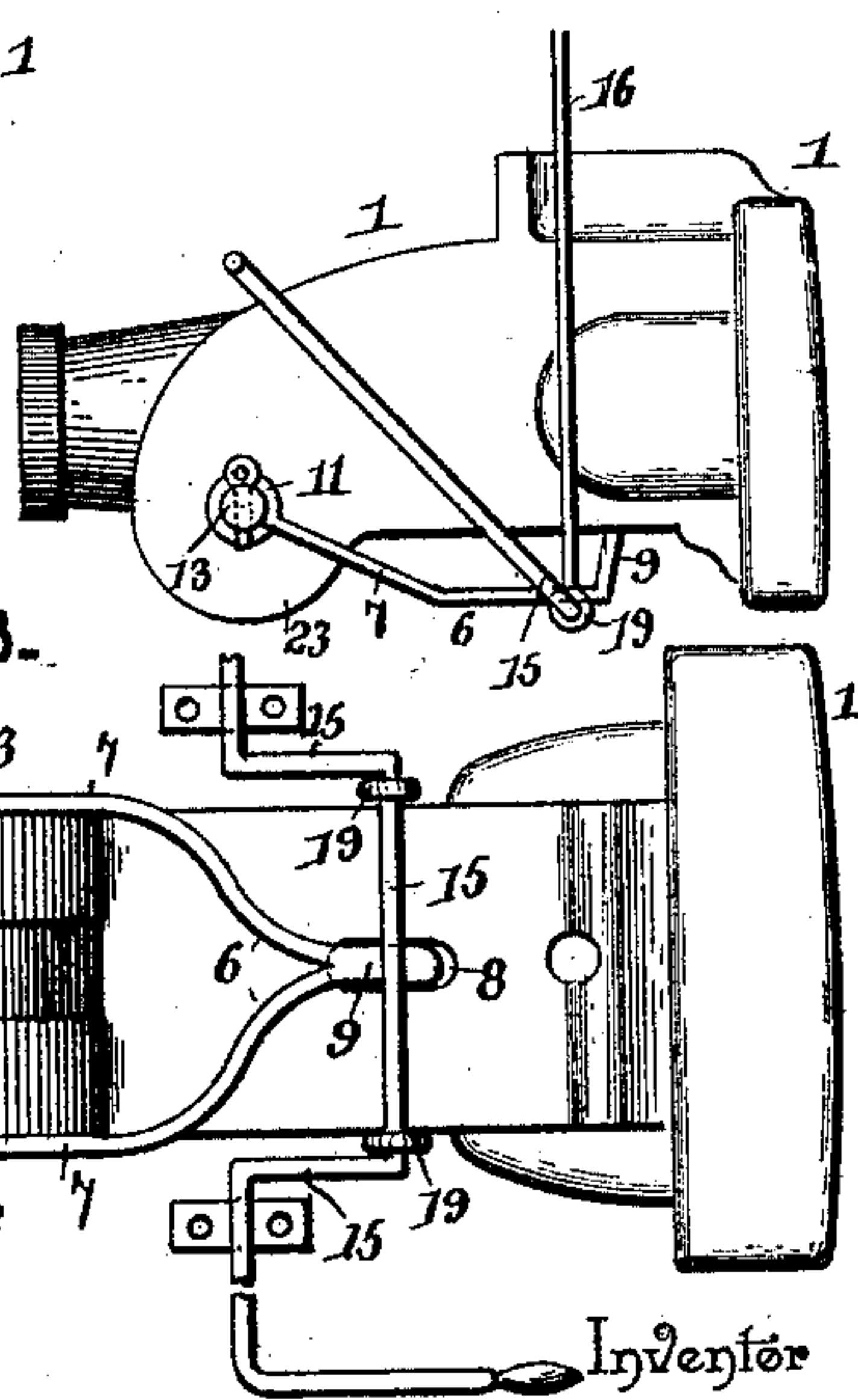


FIG. 3.

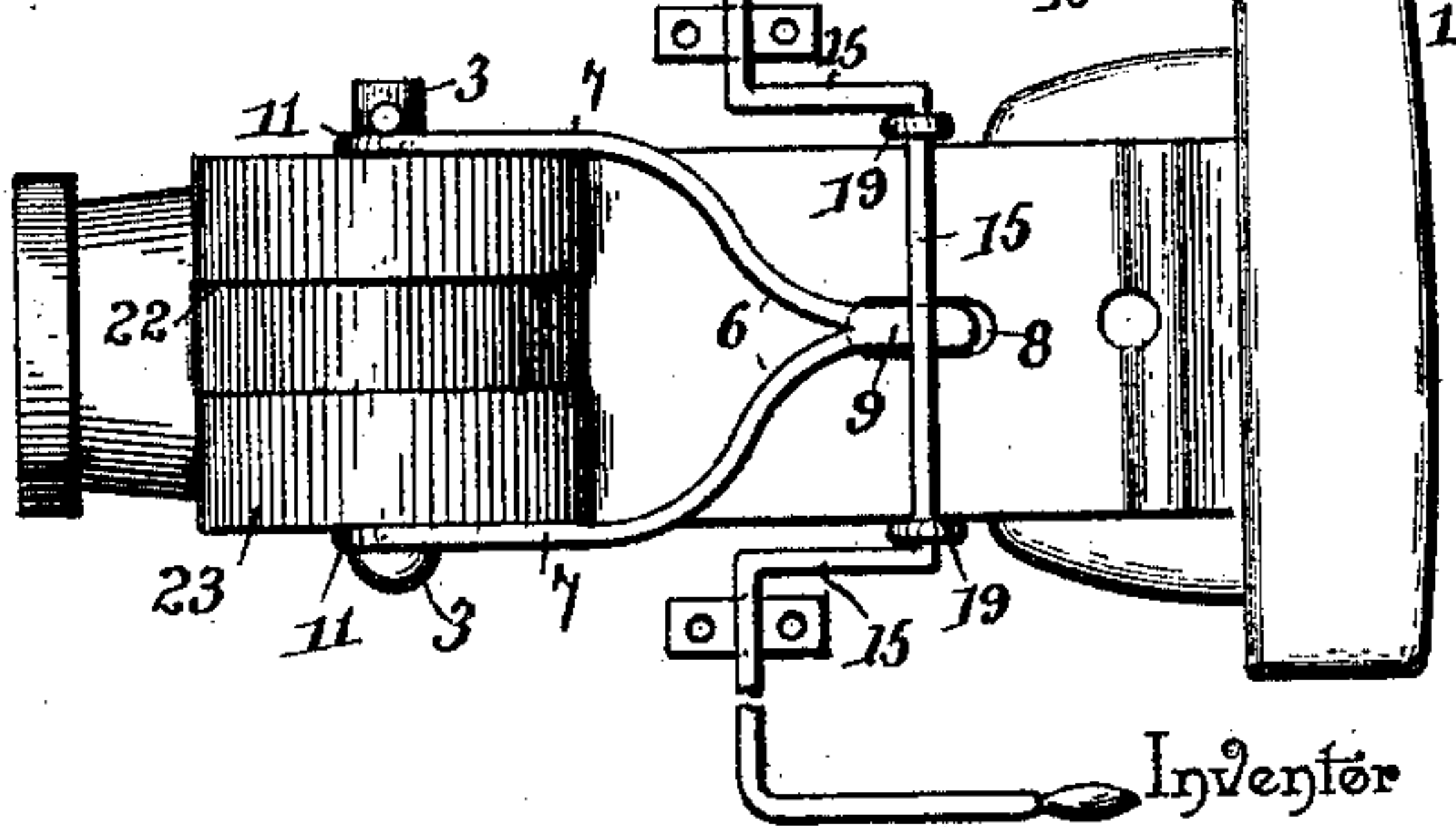
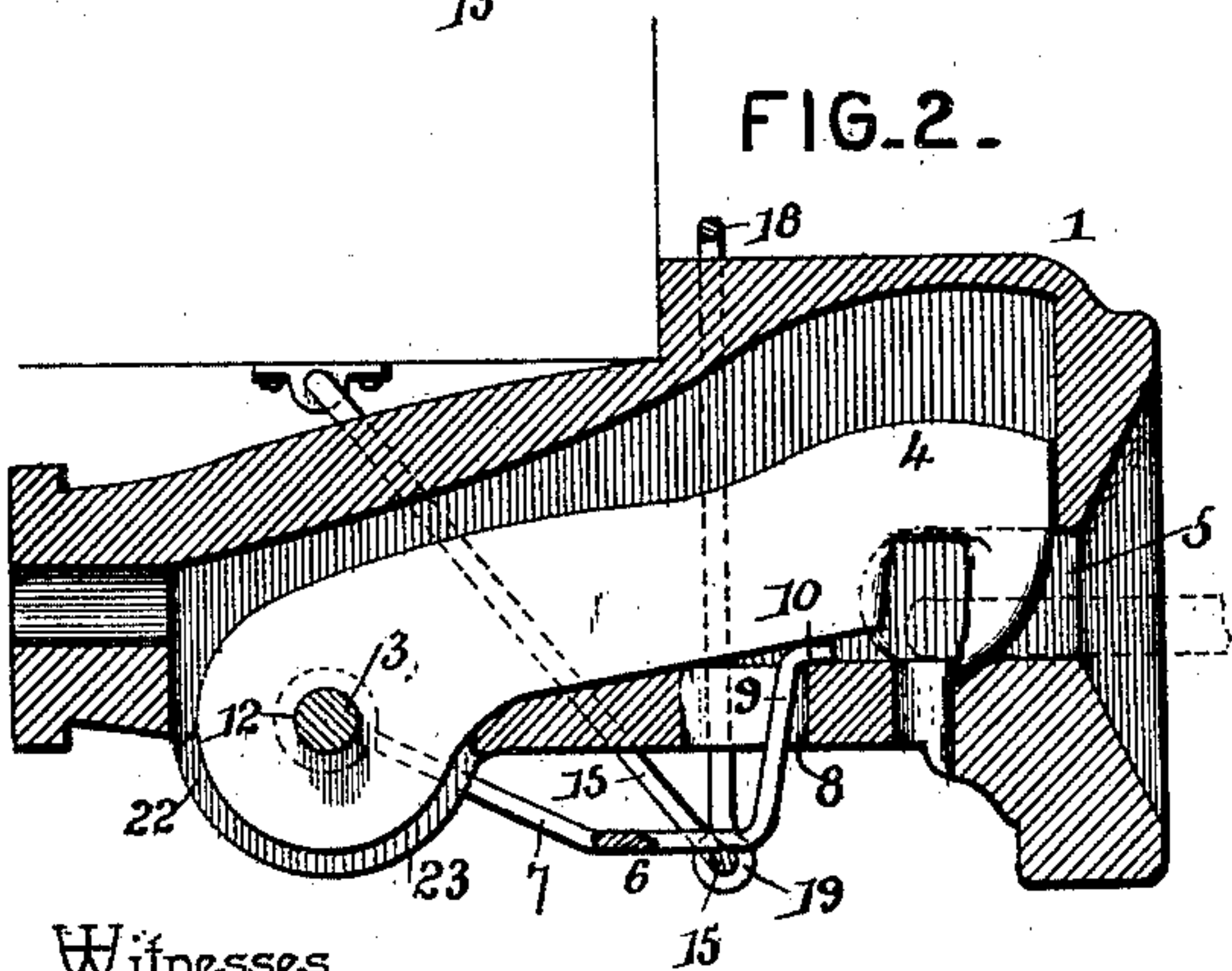


FIG. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

DAVID URBANE GRAVELINE, OF GRANBY, CANADA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 474,123, dated May 3, 1892.

Application filed January 16, 1892. Serial No. 418,276. (No model.)

To all whom it may concern:

Be it known that I, DAVID URBANE GRAVELINE, a citizen of the United States, residing at Granby, in the county of Shefford and Province of Quebec, Canada, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

10 The object of the present invention is to simplify and improve the construction of hook-and-link car-couplings and to provide one which will couple automatically and which may be readily uncoupled from the side of
15 the car or the top thereof.

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

In the drawings, Figure 1 is a perspective view of a portion of a car provided with a car-coupling constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a reverse plan view.
25 Fig. 4 is a side elevation of the draw-head.

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

30 1 designates a hollow draw-head, which is supported beneath a car-body 2, and within which on a transverse pin 3 is journaled a draw-hook 4, having its hook proper standing just in rear of the mouth 5 of the draw-head 1. On the said transverse pin 3 is also
35 journaled a draw-hook-lifting yoke 6, having its ends arranged at the sides of the hollow draw-head. The side bars 7 of the yoke 6 converge and meet and extend forward under the draw-head and vertically through a longitudinal slot 8 in the same and form an L-shaped portion 9, the upper end 10 of which is bent horizontally and is arranged beneath the hook and supports the same when the latter is
40 raised for uncoupling. The transverse pin or pivot 3 passes through the sides of the draw-head, eyes 11 of the yoke, and the pivot-hole 12 of the hook.

A rock-shaft 13 is journaled in suitable
50 bearings across the end of the car-body and having operating-handles 14 at its extremity

arranged at the sides of the car and provided at its center with an angular crank-loop 15, which extends forward and which is arranged to meet the yoke to lift the same and raise
55 the draw-hook. The draw-hook is raised from the top of the car by a vertical rod 16, provided at its top with a hand-loop 17 and having at its bottom an arched portion 18, which straddles the draw-head, and which is pro-
60 vided at its ends with eyes 19 to receive the transverse portion of the rectangular crank-loop, whereby the rod 16 is attached to the same. The top of the rod 16 is arranged in a key-hole slot 20 of the projecting portion of
65 the top of the car, and the end 21 of the rod is extended along the latter for a short distance to provide a stop which is adapted to engage the top of the car to hold the hook elevated when the rod 16 is lifted and moved
70 in the narrow portion of the key-hole slot.

The coupling may be used in connection with either a straight link or a crooked one.

The draw-head is provided in its bottom near its rear end with an opening 22, in which
75 the rear end of the hook is arranged and through which the hook is inserted and removed, and the sides of the draw-head are enlarged at 23 on opposite sides of the opening 22. Should the draw-hook become broken
80 it may be removed and a new one may be inserted without necessitating the removal of the draw-head.

What I claim is—

1. In a car-coupling, a hollow draw-head
85 having an open mouth and provided in its bottom with a slot arranged near the front end and having an opening near its rear end, a transverse pivot passing through the sides of the draw-head, a hook arranged in the
90 draw-head and having its rear end mounted on said pivot, a yoke having its sides arranged on the sides of the draw-head and provided with eyes receiving said pivot, said yoke having an L-shaped portion arranged on the bot-
95 tom of the draw-head and extending vertically through the said slot and supporting the hook, and a rock-shaft provided with a crank-loop arranged beneath the yoke and adapted to lift the same, substantially as described.

2. In a car-coupling, a hollow draw-head provided in its bottom with a slot and with an

opening, a transverse pivot passing through
the sides of the draw-head, a hook arranged
in the draw-head and having its rear end
mounted on said pivot, a yoke having its sides
5 arranged at the sides of the draw-head and
mounted on the pivot and provided with an
L-shaped portion extending through said slot
and supporting the hook when the latter is
elevated, a rock-shaft provided with an an-
10 gular crank-loop arranged beneath the yoke,
and a vertical rod provided at its lower end

with an arched portion straddling the draw-
head and connected to the crank-loop, sub-
stantially as described.

In testimony that I claim the foregoing as 15
my own I have hereto affixed my signature in
the presence of two witnesses.

DAVID URBANE GRAVELINE.

Witnesses:

WM. PILLSWORTH,
JOSEPH ALDEN.