

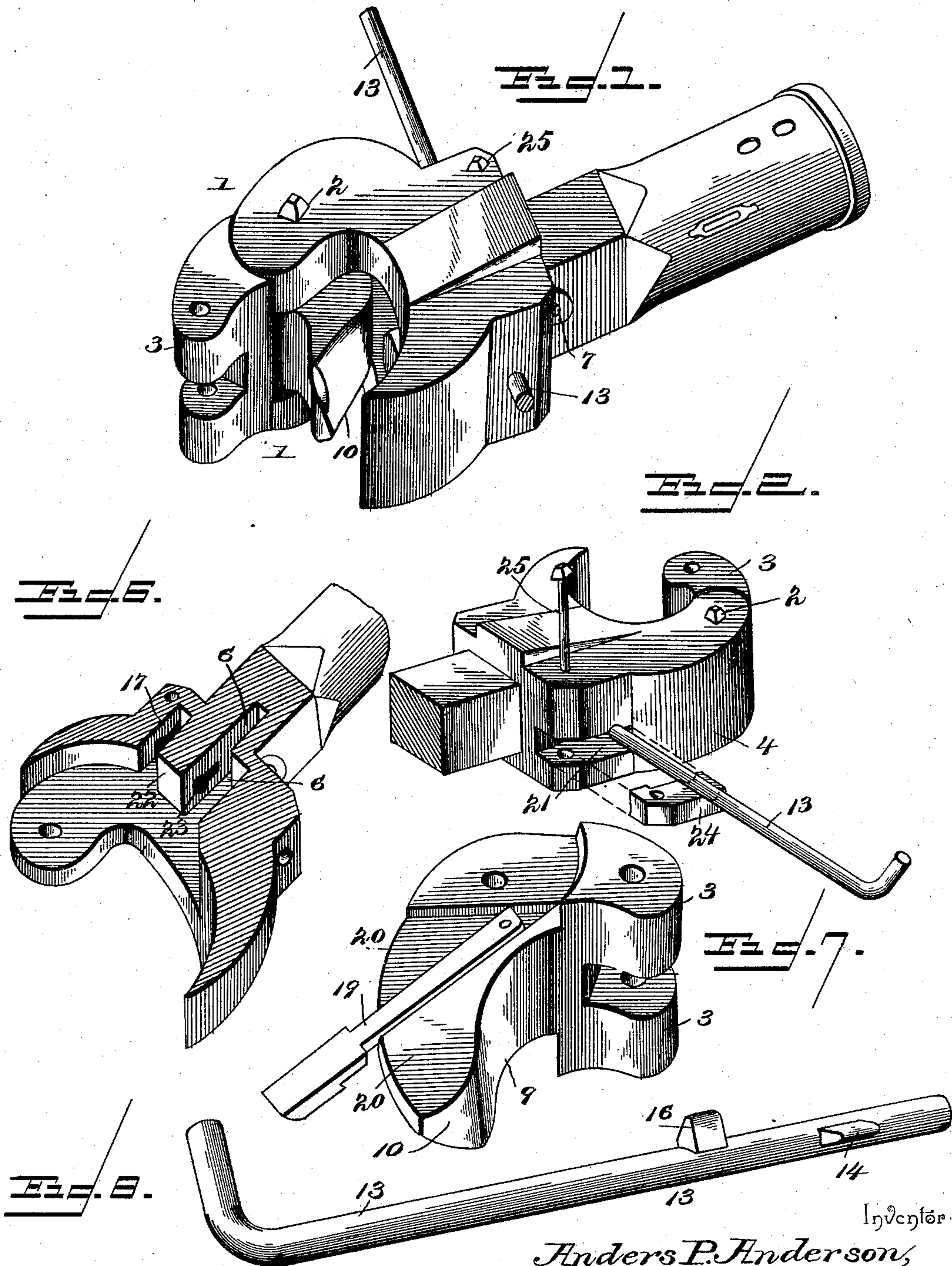
(No Model.)

2 Sheets—Sheet 1.

A. P. ANDERSON.
CAR COUPLING.

No. 505,621.

Patented Sept. 26, 1893.



Inventor.

Anders P. Anderson,

Witnesses

E. H. Stewart.
N. P. Riley

By *his* Attorneys.

C. A. Snow & Co.

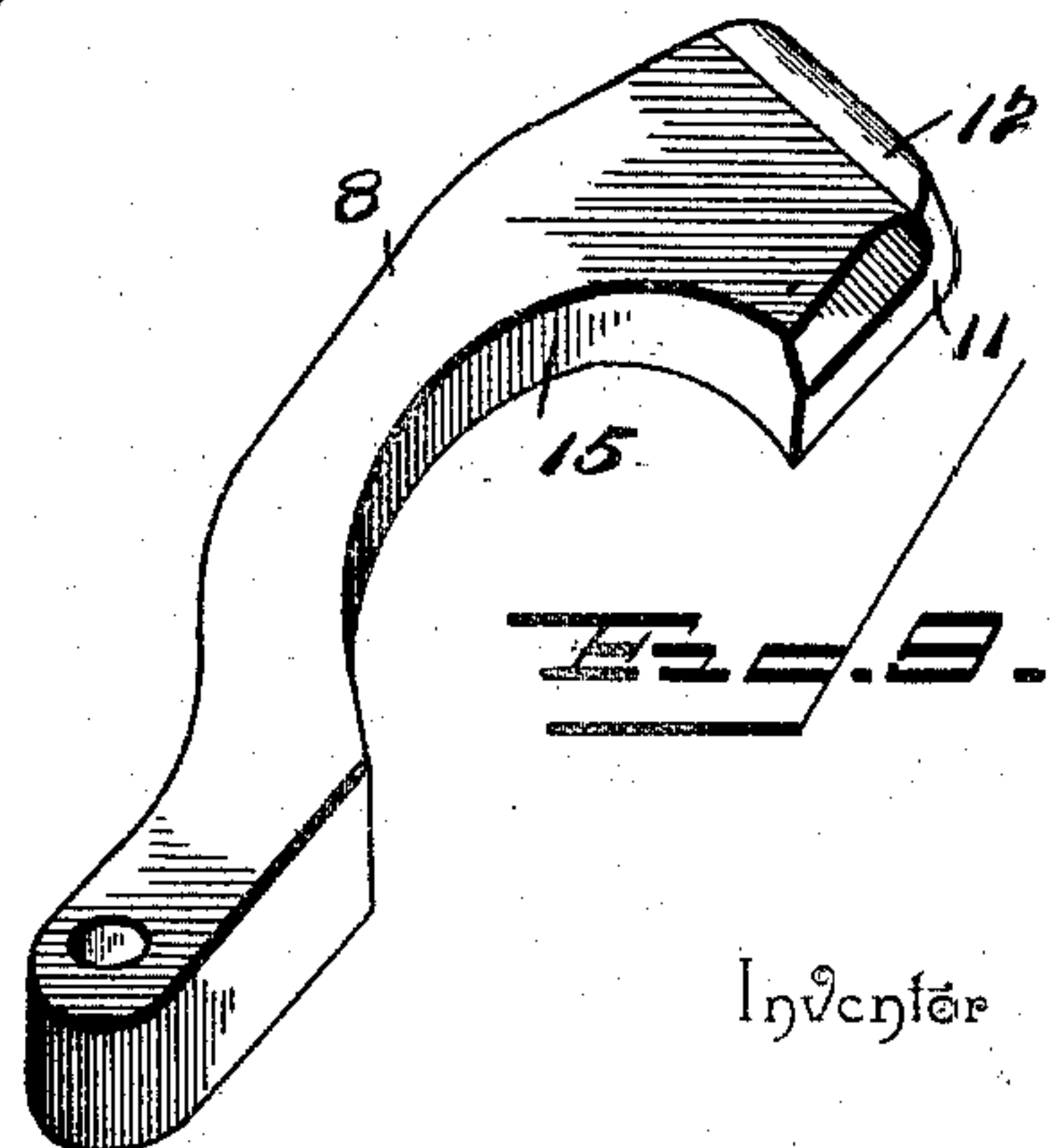
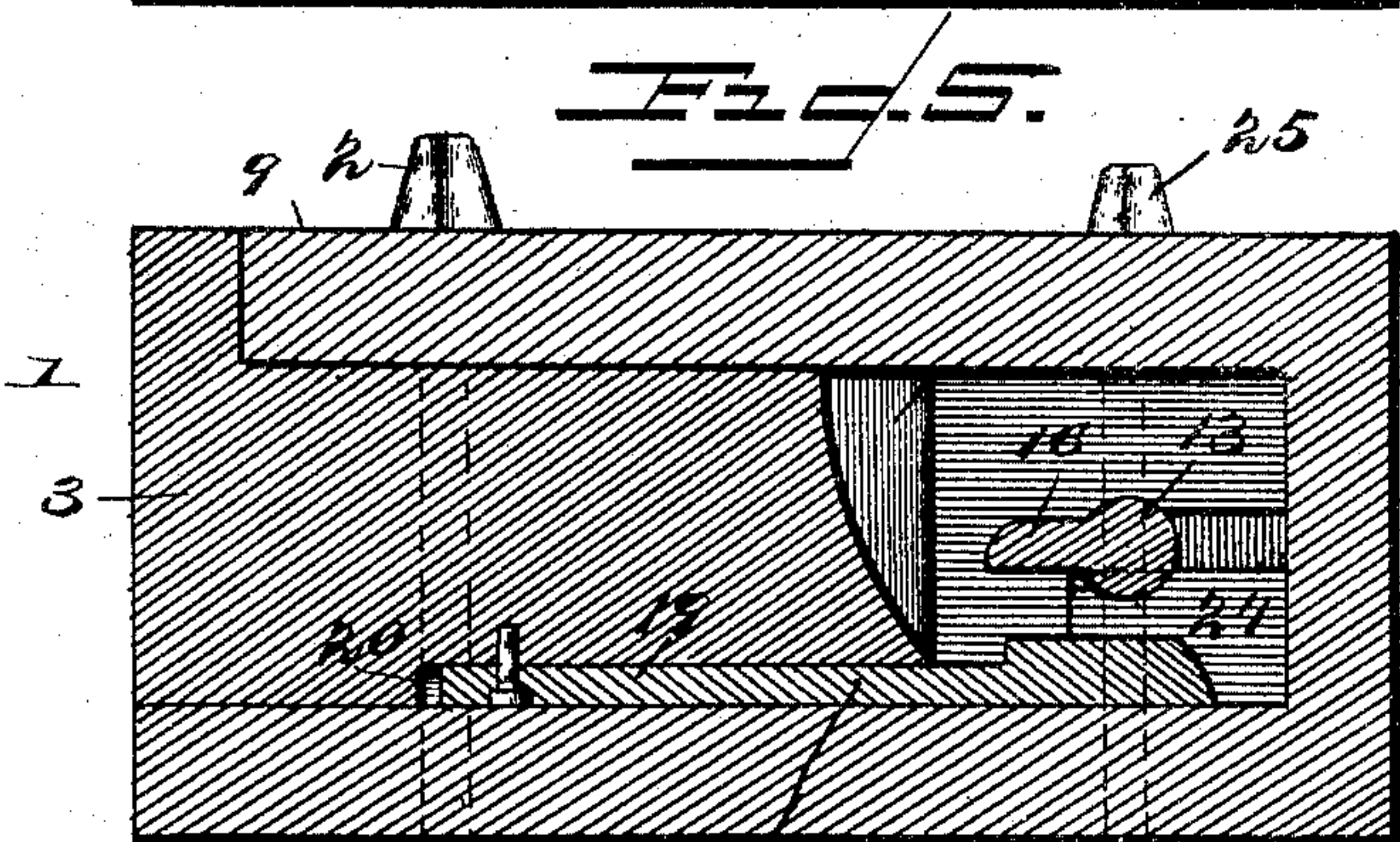
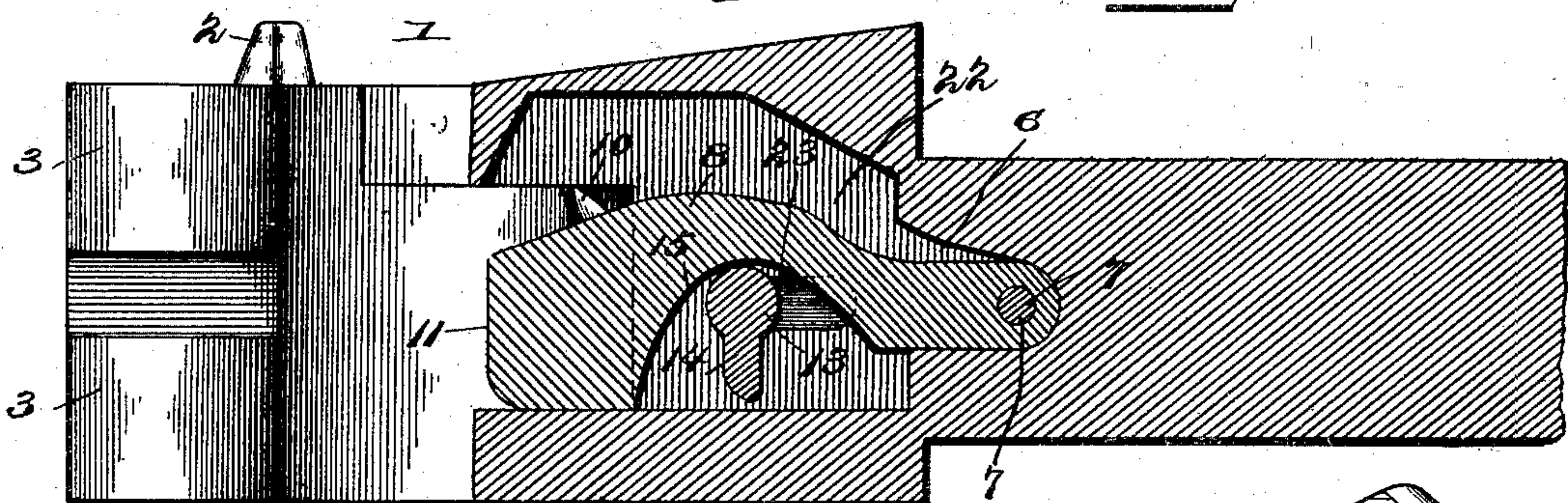
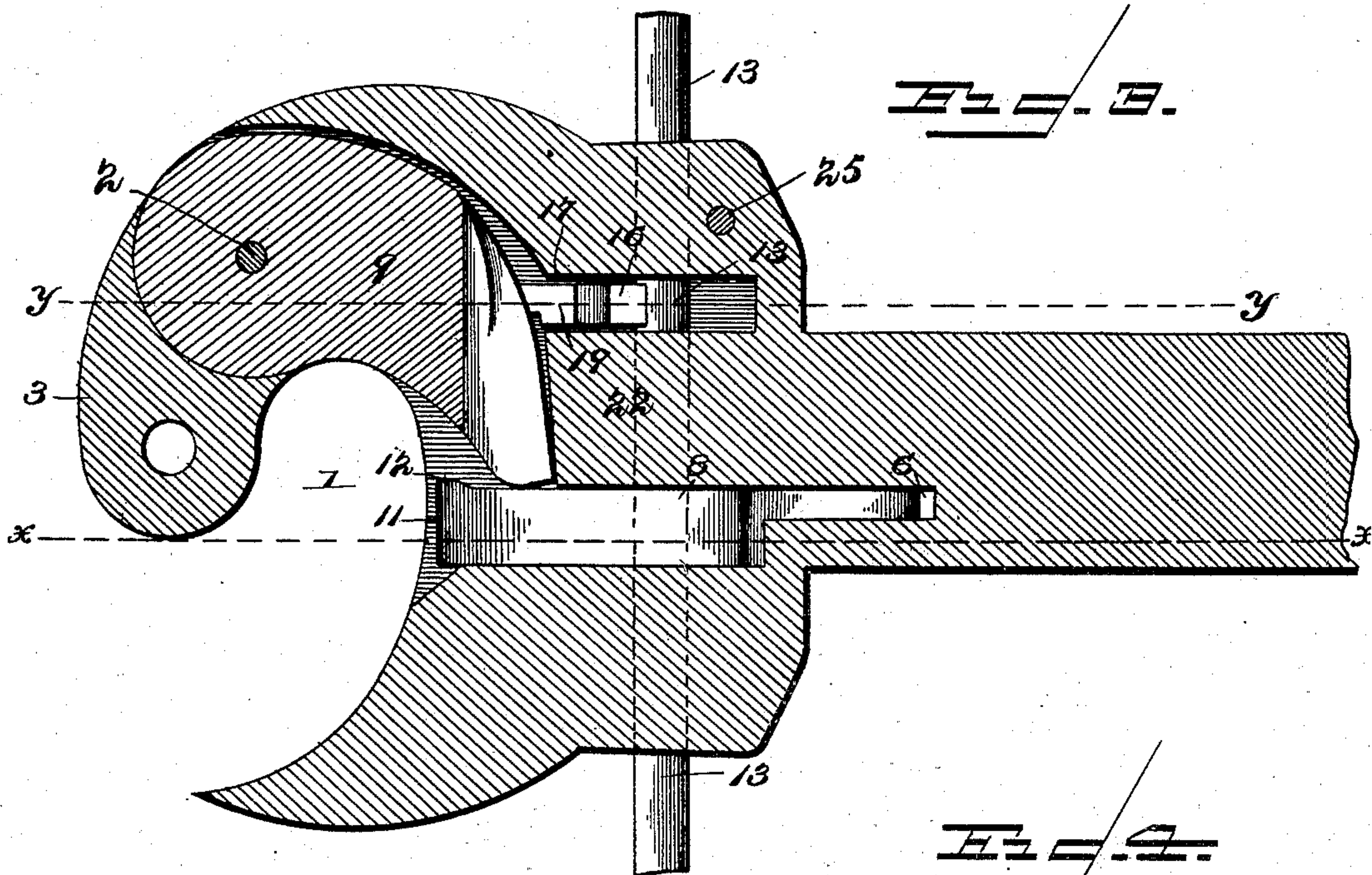
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2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

ANDERS PEDER ANDERSON, OF SAN ANTONIO, TEXAS, ASSIGNOR OF ONE-HALF TO HENRY E. VERNOR, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 505,621, dated September 26, 1893.

Application filed June 8, 1893. Serial No. 476,949. (No model.)

To all whom it may concern:

Be it known that I, ANDERS PEDER ANDERSON, a citizen of the United States, residing at San Antonio, in the county of Bexar and State of Texas, have 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 improve the construction of twin-jaw car-couplings, and to provide a simple, inexpensive, and efficient one which will couple automatically and which may be readily uncoupled without going between cars.

A further object of the invention is in the operation of uncoupling to open the knuckle after releasing the same in order to have the knuckle in position preparatory to coupling.

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

In the drawings, Figure 1 is a front perspective view of a car-coupling constructed in accordance with this invention. Fig. 2 is a rear perspective view of the same, the bearing-block being withdrawn from its recess. Fig. 3 is a horizontal sectional view. Fig. 4 is a longitudinal sectional view on line $x-x$ of Fig. 3. Fig. 5 is a similar view on line $y-y$ of Fig. 3. Fig. 6 is a detail sectional perspective view of the draw-head. Fig. 7 is a detail perspective view of the knuckle and its push-bar. Fig. 8 is a similar view of the transverse shaft. Fig. 9 is a detail perspective view of the catch.

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

1 designates a draw-head, having pivoted to it, by a knuckle-pin 2, a knuckle 3. The draw-head has a longitudinal recess 6, in which is pivoted, by a transverse pin or bolt 7, a gravity-catch 8, for engaging and locking the arm 9, of the knuckle 3. The arm 9 of the knuckle 3 has its rear face beveled, at 10, and the front end 11 of the catch 8 is slightly beveled at one corner and is adapted to be readily raised by the arm of the knuckle to

permit the latter to pass it and be locked by it, thereby providing an automatic coupling. The front end of the catch has at its inner side a slight lateral enlargement 12, in order to form an absolutely secure lock for the knuckle to prevent any amount of strain from forcing the arm of the knuckle past it.

The operation of uncoupling is performed from one side of a car without going between cars by a horizontal shaft 13, journaled in the draw-head and extending transversely through the same and provided with an arm 14, which is arranged within a curved recess 15, of the catch 8, and is adapted to lift the catch out of engagement with the arm of the knuckle to free the latter. The curved recess 15 is in the lower edge of the catch and enables the arm or lug 14 of the shaft to engage readily and lift the catch 8. After the catch is lifted out of engagement with the arm of the knuckle the latter is opened by an arm or lug 16, of the shaft 13, arranged in a longitudinal recess 17, of the draw-head, and engaging the inner end of a push-bar 19, which is pivoted to the knuckle. The knuckle is provided in its lower face with a sector-shaped recess 20 to receive the front or outer portion of the push-bar 19. The shaft 13 is inserted into the draw-head from one side thereof into a recess 21, and the solid portion 22 of the draw-head between the recesses 6 and 17 is provided with a key-hole slot or opening 23 to permit the passage of the arm or lug 14. The recess 21 is horizontal and receives a bearing-block 24, which completes the draw-head and fills the opening or recess 21 and is detachably secured therein by a vertical bolt or pin 25.

Any suitable means may be employed for enabling the shaft to be rotated from the platform of a passenger-car and from the top and sides of a freight-car.

It will be apparent that the car-coupling is simple and inexpensive in construction, strong and durable, that it is capable of automatic coupling and ready uncoupling, and that it does not necessitate persons going between cars in either operation. The sector-shaped recess of the knuckle limits the outward swing of the latter and holds the same in the proper position for coupling, and it enables the push-

bar to move freely without friction. The rear end of the push-bar is slightly enlarged where it is engaged by the arm of the shaft. The bearing-block is provided in its upper face with a groove to receive the shaft and it is shaped to conform to the configuration of the draw-head.

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

What I claim is—

1. In a car-coupling, the combination of a draw-head, a knuckle pivoted thereto, a catch pivotally mounted in the draw-head for locking the knuckle, a push-bar arranged in the draw-head and having its outer end connected to the knuckle, and a shaft journaled in the draw-head and provided with arms arranged to lift the catch and to move the push-bar forward whereby the knuckle is released and opened, substantially as described.

2. In a car-coupling, the combination of a draw-head, a knuckle pivoted thereto and having an arm, and a pivoted catch mounted in the draw-head and arranged to engage the arm of the knuckle and provided at its outer end adjacent to the knuckle with an enlargement projecting laterally to confine the arm of the knuckle, substantially as and for the purpose described.

3. In a car-coupling, the combination of a draw-head, a knuckle pivoted thereto, a catch pivotally mounted in the draw-head for locking the knuckle and provided in its lower edge with a curved recess, a push-bar having its outer end pivoted to the knuckle, and a horizontal shaft journaled in the draw-head and provided with arms arranged at an angle to each other, one of the arms being located beneath the catch at the recess thereof and the other arm being arranged to engage the inner end of the push-bar, substantially as and for the purpose described.

4. In a car-coupling, the combination of a draw-head provided at one side with a horizontal recess and having longitudinal re-

cesses 6 and 17 and provided in the solid portion between the recesses 6 and 17 with a key-hole opening, a horizontal shaft provided with arms and adapted to be inserted into the draw-head through the horizontal recess and the key-hole opening and having its arms arranged in the longitudinal recesses 6 and 17, a knuckle pivoted to the draw-head, a catch pivotally mounted in the draw-head and arranged in the recess 6 above the adjacent arm of the shaft, and a push-bar having its outer end pivoted to the knuckle and extending inward into the recess 17 to be engaged by the adjacent arm of the shaft, substantially as described.

5. In a car-coupling, the combination of a draw-head provided at one side with a horizontal recess and having longitudinal recesses 6 and 17 and provided in the solid portion between the recesses 6 and 17 with a key-hole opening, a horizontal shaft provided with arms arranged in the longitudinal recesses, a bearing-block detachably arranged in the horizontal recess, a knuckle pivoted to the draw-head and provided in its lower face with a recess, a push-bar pivoted to the knuckle in the recess thereof and extending inward into the recess 17 of the draw-head, and a catch pivotally mounted in the recess 6 of the draw-head, substantially as described.

6. In a car-coupling, the combination of a draw-head, a knuckle pivoted thereto and provided in its lower face with a sector-shaped recess, a catch pivotally mounted in the draw-head for locking the knuckle, a push-bar arranged in the draw-head and having its front end pivoted to the knuckle in the recess thereof, and a shaft journaled in the draw-head and provided with arms arranged to lift the catch and to actuate the push-bar, 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.

ANDERS PEDER ANDERSON.

Witnesses:

CHAS. SCHEIDEMANTEL, Jr.,
C. S. ROBINSON.