

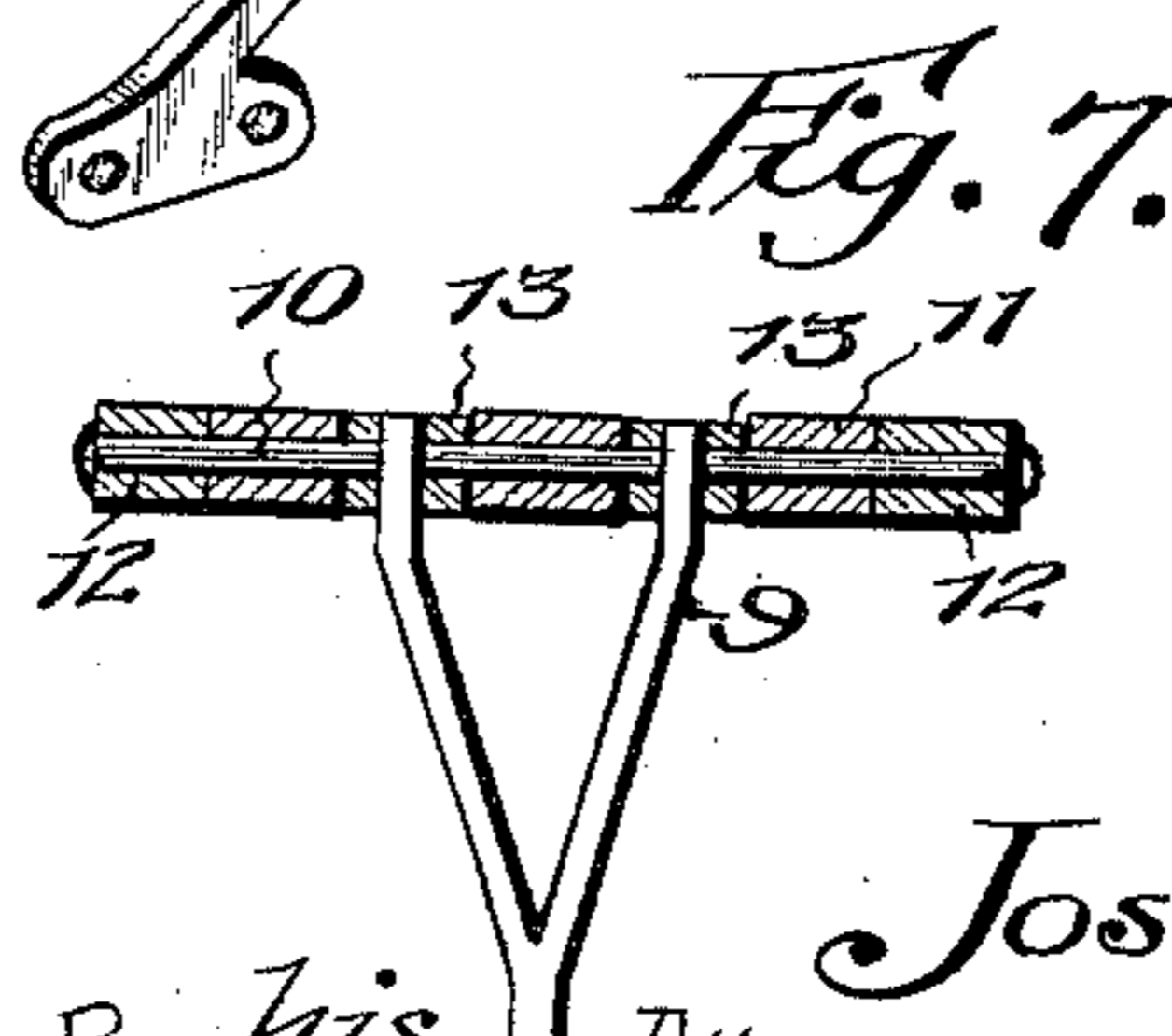
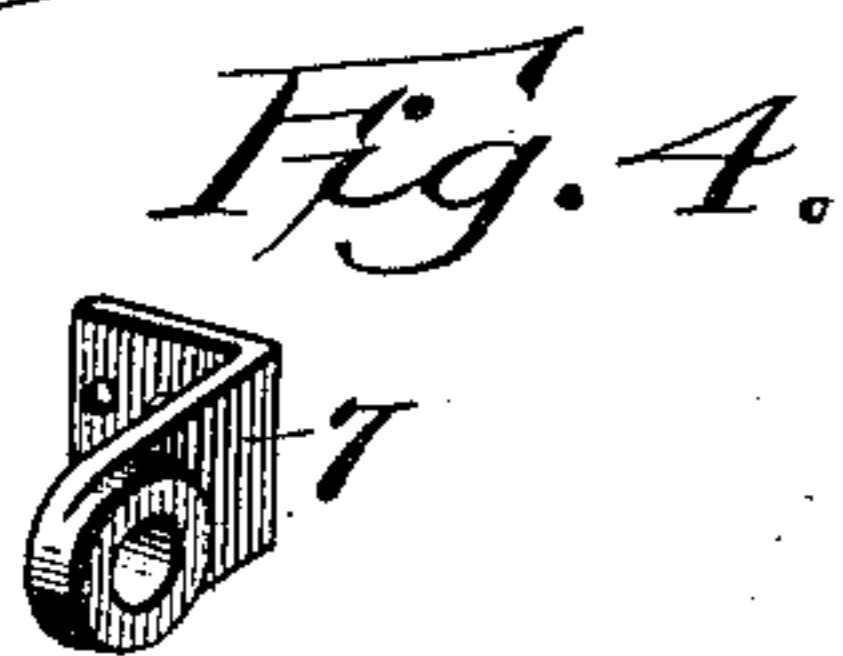
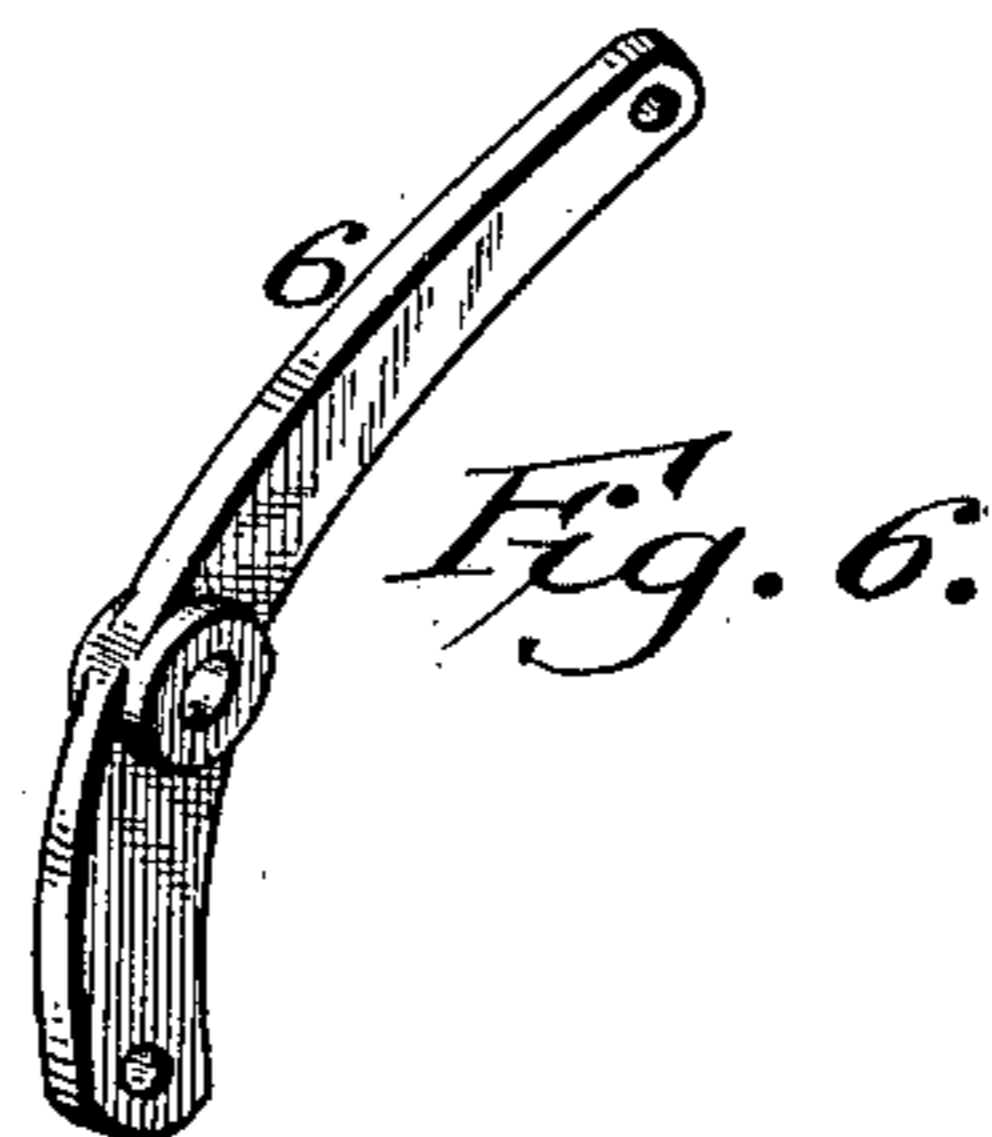
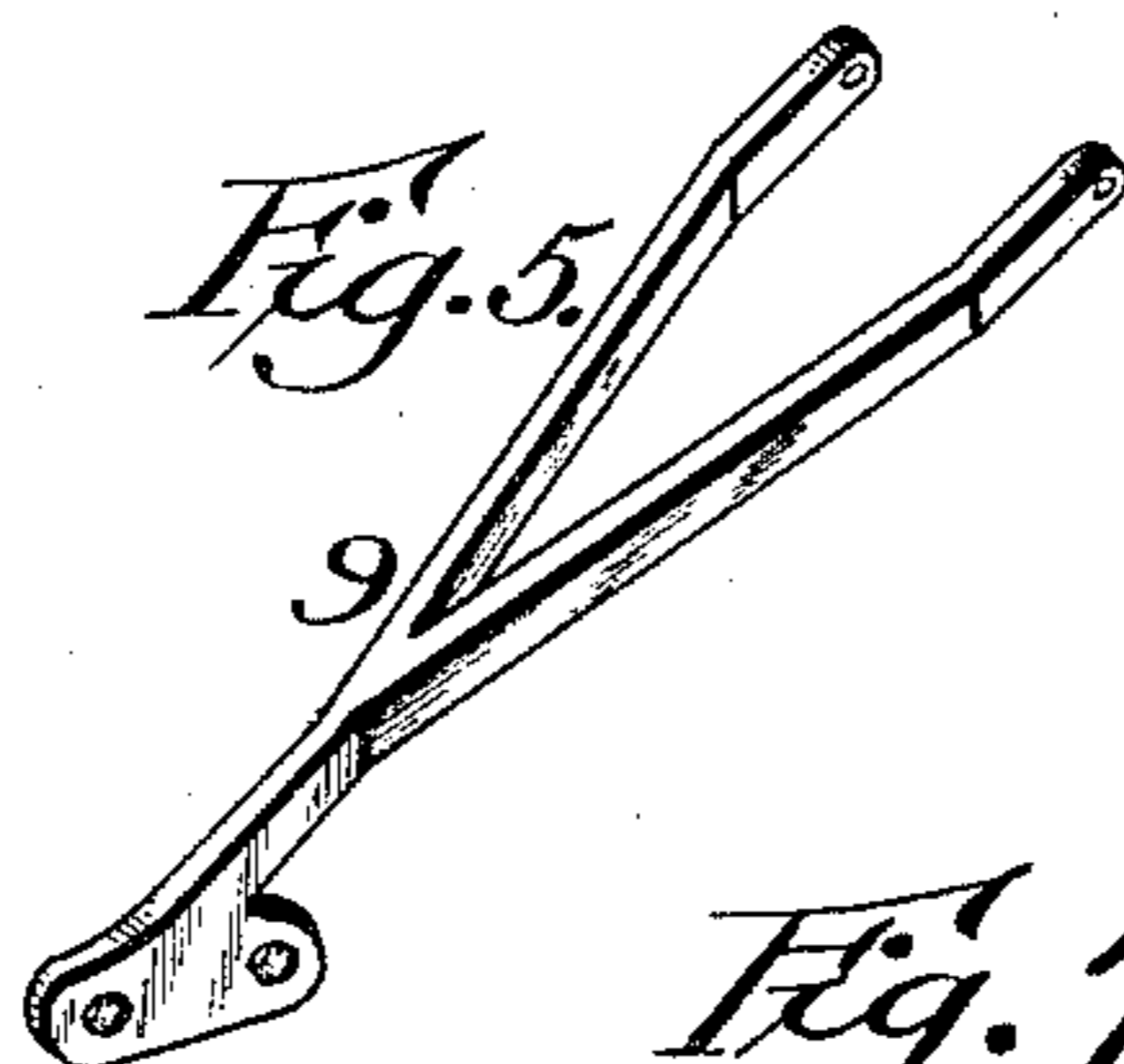
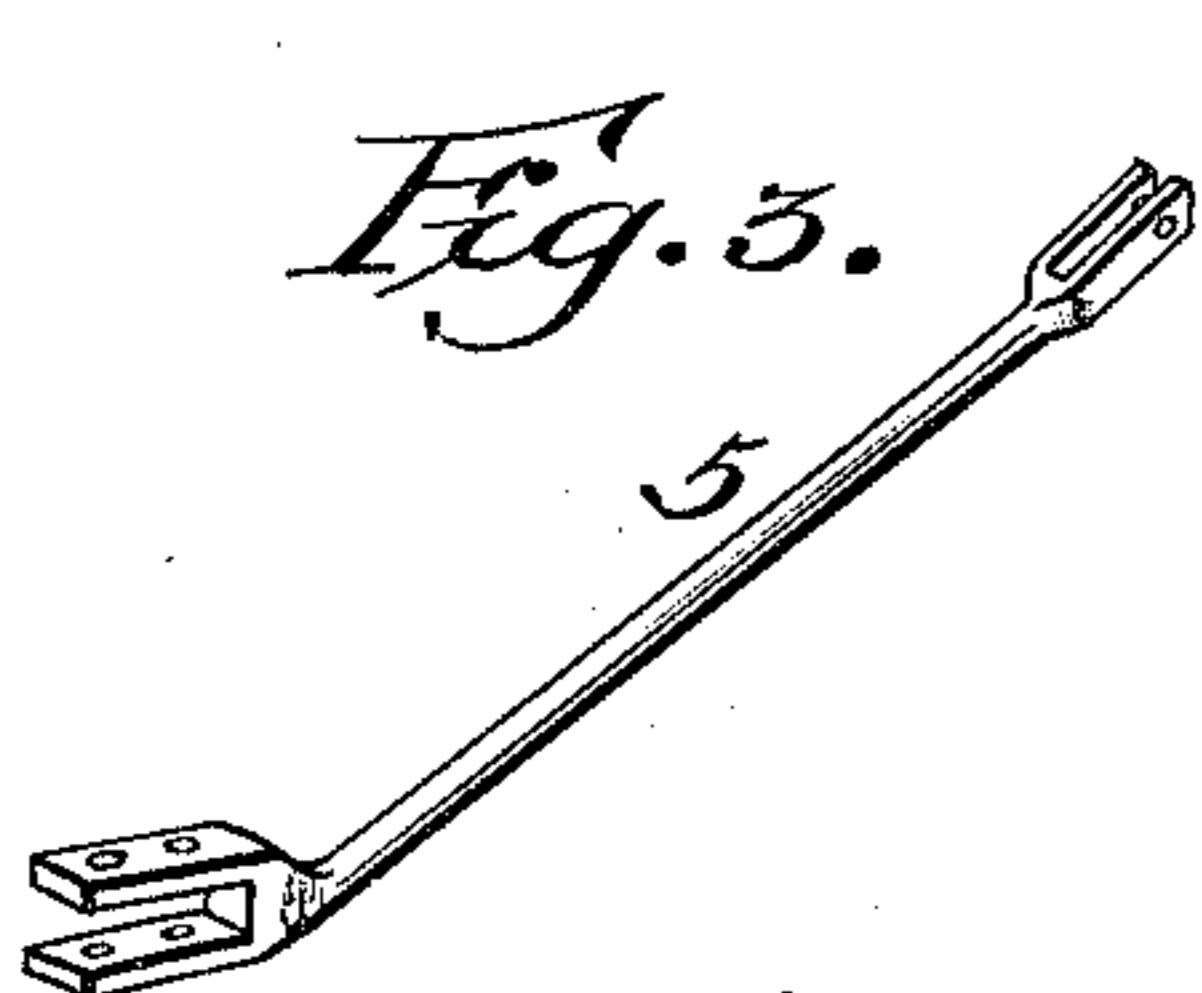
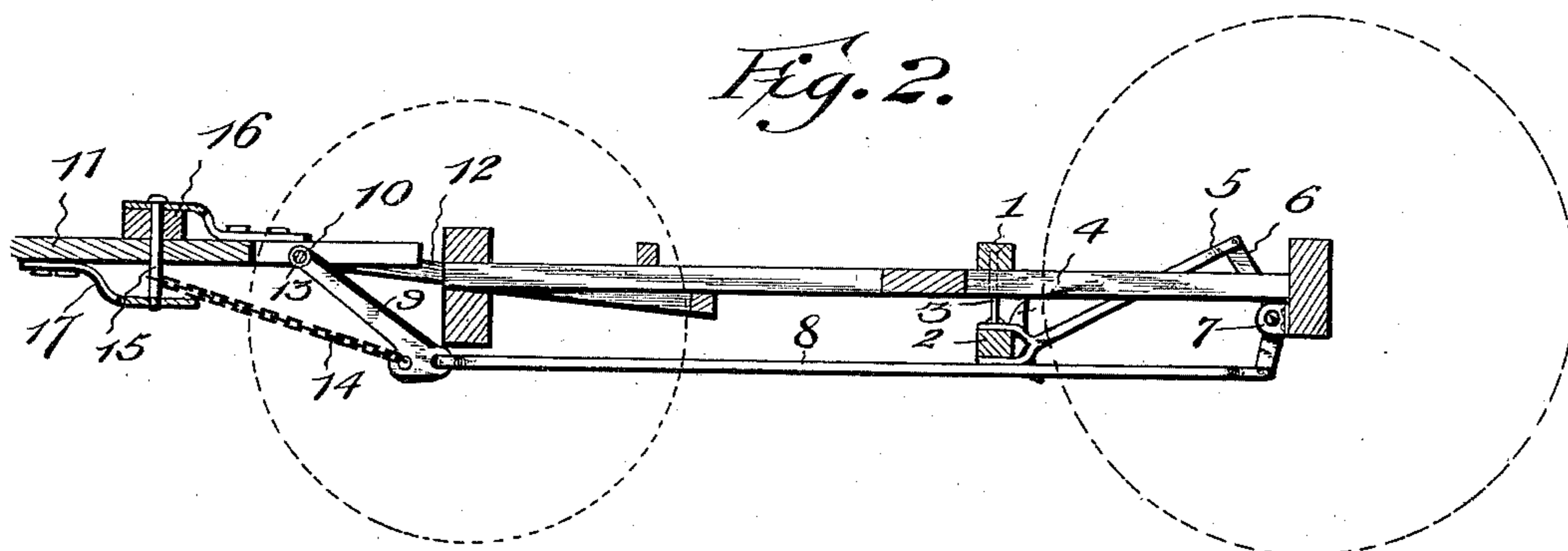
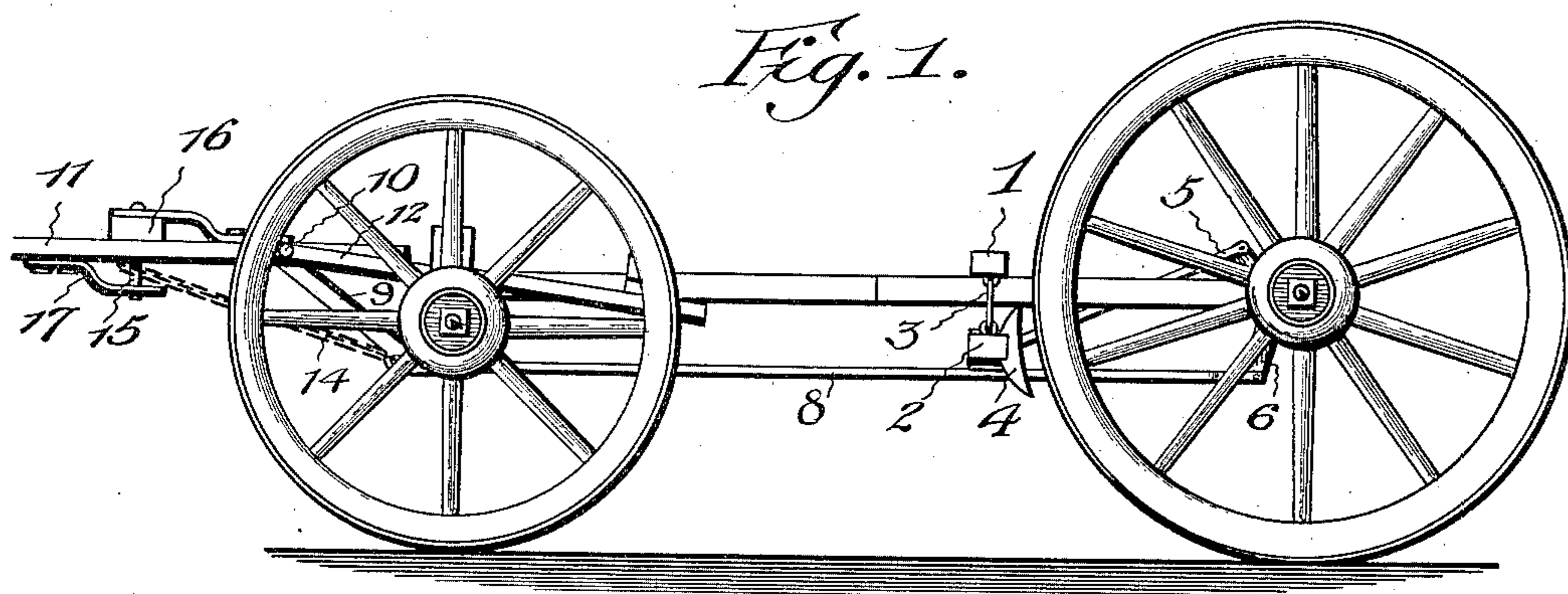
No. 610,974.

Patented Sept. 20, 1898.

J. RAMAGE.
VEHICLE BRAKE.

(Application filed Apr. 6, 1898.)

(No Model.)



Witnesses

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By his

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UNITED STATES PATENT OFFICE.

JOSEPH RAMAGE, OF WRIGHTSBOROUGH, TEXAS, ASSIGNOR OF ONE-THIRD
TO C. F. GOODENOUGH, OF SAME PLACE.

VEHICLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 610,974, dated September 20, 1898.

Application filed April 6, 1898. Serial No. 676,659. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH RAMAGE, a citizen of the United States, residing at Wrightsborough, in the county of Gonzales and State of Texas, have invented a new and useful Vehicle-Brake, of which the following is a specification.

The invention relates to improvements in vehicle-brakes.

10 The object of the present invention is to improve the construction of automatic vehicle-brakes and to provide a simple, inexpensive, and efficient one adapted to be applied by the upward movement of a tongue
15 or pole, whereby a driver may effect an application of the brake by simply drawing in on the reins without removing his hands therefrom.

20 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.

25 In the drawings, Figure 1 is a side elevation of an automatic brake constructed in accordance with this invention and shown applied to a vehicle. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a detail view of the inclined connecting-rod. Fig. 4
30 is a detail view of one of the bracket-plates. Fig. 5 is a detail view of the forked lever. Fig. 6 is a detail view of the rear lever. Fig. 7 is a detail sectional view illustrating the manner of mounting the oscillating lever.

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

40 1 designates a transverse supporting-bar, mounted upon a running-gear in advance of the hind wheels and extending from opposite sides of the rear hounds and terminating short of the hind wheels. A transverse brake bar or beam 2 is suspended by links 3 or other
45 suitable hangers from the ends of the supporting-bar and carries brake-shoes 4, which are arranged to engage the hind wheels in the usual manner. The brake beam or bar 2 is drawn rearward in the application of the
50 brake and has centrally secured to it the front end of an inclined connecting-rod 5, which

has its upper end pivoted to a lever 6. The front end of the connecting-rod is bifurcated and straddles the brake bar or beam, and the upper or rear end is also bifurcated and receives the upper end of the lever 6.

55 The lever 6 is fulcrumed between its ends between brackets 7, and its lower end is connected by a rod 8 with an oscillating lever 9, suspended from the front portion of the running-gear, preferably on the transverse pin
60 10, which pivots the tongue 11 between the front hounds 12. The rear end of the connecting-rod is bifurcated, and the brackets 7 are provided with perforated ears, which are arranged on opposite sides of the lever 6; but
65 instead of employing a pair of brackets 7 a single bracket having a pair of perforated ears may be used. The lever 6, which is slightly curved, is provided at its pivotal
70 point with opposite annular lugs or bosses which offset the lever from the perforated ears and enable it to operate without friction.

The oscillating lever 9, which is preferably forked to straddle the tongue or pole, may consist of a simple bar and be fulcrumed at
75 either side of the pole or at any other desired point. The sides of the bifurcated or forked portion of the lever 9 are separated from the pole by washers 13, and the lower end of the lever is connected by a chain 14 or other suitable
80 flexible connection with the tongue or pole in advance of the pivot of the same. The front end of the chain is arranged on the pivot 15 of the doubletree 16 and is supported by a bracket-plate 17, consisting of a
85 plate or strap secured at its front end to the lower face of the pole or tongue and having its rear end offset from the same, as clearly shown in the drawings. The lower end of
90 the lever 9 is provided with a pair of eyes, one of which receives the rear end of the chain and the other the front end of the longitudinal connecting-rod. When the tongue is swung upward, it draws on the connections
95 between it and the lower end of the rear lever 6 and effects a positive application of the brake-shoes without slidingly connecting the tongue or any of its connections with the rest of the running-gear, and as the brake does
100 not depend for its action on the forward move-

ment of the body portion of the running-gear on the draft-animals it may be applied on a level surface as readily as on an incline.

The invention has the following advantages: The brake, which is simple and inexpensive in construction, is automatic in operation and is applied when the driver draws in on the reins, and when the reins or lines are slackened the tongue or pole is permitted to fall and carries the brake-shoes out of engagement with the hind wheels. It is more powerful than a hand or foot brake, and a driver does not have to let go the lines in applying it. As all of the parts of the brake and their connections are mounted on the running-gear longitudinally of the center thereof, there are no side rods or other parts to interfere with loading or unloading a vehicle, and the brake does not in any way interfere with the removal of the wagon body or bed and the use of a rack or frame for hauling wood, hay, fodder, or the like. It can be operated from the top of a load and also from on horseback, which is especially advantageous when four horses are used and the driver is riding one of the rear horses. It is operated by a straight pull on the connections and there is no tendency to bend or twist the rods by back pressure. The brake is applicable to all vehicles having a tongue or pole capable of swinging upward and downward.

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—

1. In a device of the class described, the combination of a running-gear having a pole adapted to swing upward and downward, a brake bar or beam suspended from the running-gear in advance of the hind wheels and located beneath the reach, brake-shoes car-

ried by the brake bar or beam, a lever fulcrumed on the running-gear, adjacent to the rear axle and extending above and below the reach, an inclined connecting-rod 5 extending from the brake bar or beam to the upper end of the lever, an oscillating lever fulcrumed at its upper end on the running-gear and depending from the same in advance of the front axle, connections between the lower ends of the levers, and means for connecting the oscillating lever with the pole, substantially as described.

2. In a device of the class described, the combination of a running-gear having a tongue adapted to swing upward and downward, a strap or plate secured to the tongue at the lower face thereof and offset therefrom and receiving the pivot of the doubletree said pivot being extended, a brake bar or beam suspended from the running-gear in advance of the hind wheels and located beneath the reach, brake-shoes carried by the brake bar or beam, the lever 6 fulcrumed between its ends at the rear axle and extending above and below the reach, the inclined connecting-bar 5 extending from the upper end of the lever to the brake bar or beam, the forked oscillating lever 9 straddling the tongue and depending from the pivot of the same, the rod 8 connecting the levers and located beneath the running-gear, and a chain extending from the oscillating lever to the pivot of the doubletree and adjustably connecting the said oscillating lever with the tongue, 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.

JOSEPH RAMAGE.

Witnesses:

G. W. BARNETT,
L. F. TYREE.