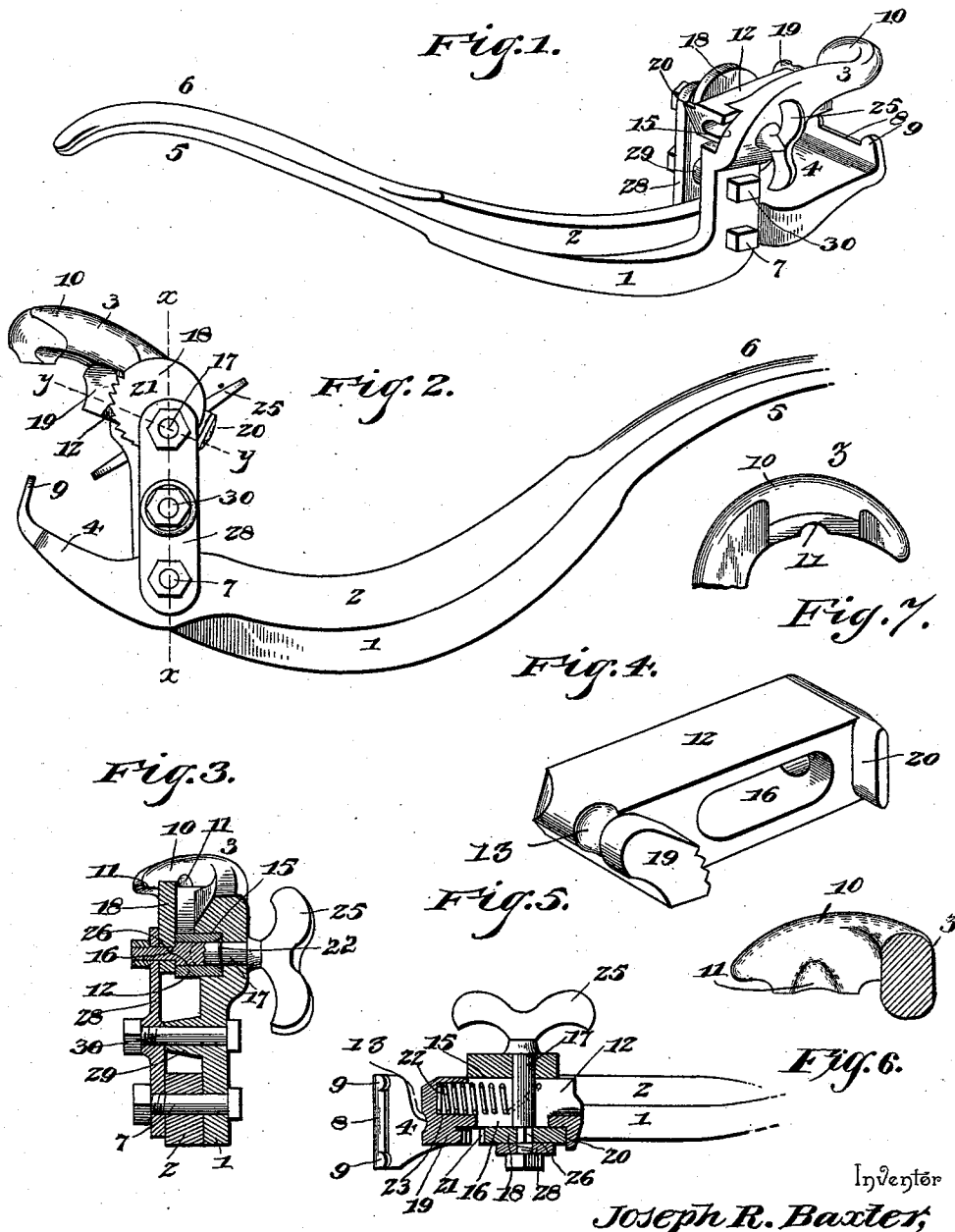


(No Model.)

J. R. BAXTER.
SHAFT ATTACHING DEVICE.

No. 536,179.

Patented Mar. 26, 1895.



Witnesses

B. S. Ober,
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By *his* Attorneys,

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UNITED STATES PATENT OFFICE.

JOSEPH R. BAXTER, OF YOUNGSTOWN, OHIO.

SHAFT-ATTACHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 536,179, dated March 26, 1895.

Application filed May 15, 1894. Serial No. 511,377. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH R. BAXTER, a citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented a new and useful Shaft-Attaching Device, of which the following is a specification.

The invention relates to improvements in shaft attaching devices.

The object of the present invention is to provide a simple, inexpensive, and effective tool, whereby shafts or thills may be readily attached to axle clips.

A further object of the invention is to enable anti-rattler springs and devices to be readily compressed in attaching shafts or thills.

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 perspective view of a tool constructed in accordance with this invention. Fig. 2 is a side elevation of the same. Fig. 3 is a sectional view on line $x-x$ of Fig. 2. Fig. 4 is a detail perspective view of the sliding jaw of the shaft engaging member. Fig. 5 is a sectional view on line $y-y$ of Fig. 2. Fig. 6 is a detail view of one of the jaws. Fig. 7 is a reverse plan view of the upper jaw.

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

1 and 2 designate two pivoted members provided with jaws 3 and 4, adapted respectively to engage a shaft, and an axle, or rather the axle clip thereof, to force the eye of the shaft iron between the perforated ears of an axle clip, to compress an anti-rattler, and to enable the pivot or coupling bolt to be readily applied. The outer ends of the members terminate in handles 5 and 6, arranged one above the other, in order to be readily grasped, the members being bent laterally toward each other, in rear of the pivot bolt 7, to provide this arrangement.

The member 2 is sigmoidally curved, and the engaging edge of the jaw 4 is beveled at 8, between a pair of lugs 9, located at the side

edges of the jaw 4, and adapted to straddle the clip plate of an axle clip.

The jaw 3 is bent approximately at right angles to the shank of the member, extending upward to engage a shaft, and terminating in a laterally disposed engaging portion 10 provided on its lower face with a boss, and having a groove 11 to conform to the configuration of the ordinary construction of shaft iron. The jaw 3 of the member 1 engages over the shaft iron, and it has mounted on it below its engaging portion 10 a sliding jaw 12, adapted to clamp the under side of a shaft iron and provided with a groove 13 to conform to the configuration of the shaft iron, in a manner similar to the boss of the engaging portion 10.

The sliding jaw is arranged in a groove or a recess 15 of the shaft engaging jaw 3. It is provided with a longitudinal opening 16, through which passes a shaft 17 carrying a cam or eccentric 18. The cam or eccentric 18 is located on the outer face of the sliding jaw, between upper and lower shoulders 19 and 20. It is provided on its upper edge with teeth 21, adapted to interlock with similar teeth of the upper shoulder 19, whereby the sliding jaw is securely held against accidental slipping. The movements of the sliding jaw are facilitated by a spiral spring 22, having its lower end attached to the shaft 17, and its upper end fitting in a socket 23 of the sliding jaw. The shaft is provided at one end with a thumb piece 25, and has its other ends threaded to receive a nut, and it is provided intermediate of its ends with a polygonal portion 26 to receive a corresponding polygonal opening of the cam or eccentric.

In order to strengthen and support the parts, a plate 28 is arranged on the outer face of the cam or eccentric, and extends from the shaft to the pivot 7, and it is supported by a hollow stud 29, formed integral with the member 1, and extending from the jaw 3, and interposed between the inner face of the same and the plate 28. A bolt 30 passes through the hollow stud and through registering perforations of the plate and the jaw.

It will be seen that the tool is simple and comparatively inexpensive in construction, that it is positive and reliable in operation,

and that it may be readily engaged with a shaft and an axle, to force the eye of the shaft iron between the perforated ears of the axle clip and to compress an anti-rattler. In grasping the handle portions of the members, the pressure exerted on them to bring them together serves to draw the shaft to the axle. It will also be apparent that the handles curve upward in order to be within convenient reach of the operator.

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. A tool, comprising two similar shaped members, pivoted together and terminating in adjacent handles, one of the members being provided with a jaw to engage over a shaft, and the other having a jaw to engage an axle, a sliding jaw mounted on the shaft engaging jaw, whereby a shaft is clamped, and means for securing the sliding jaw in its adjustment substantially as described.

2. A tool, comprising the member 2 provided with an axle engaging jaw, the member 1 pivoted to the member 2 and provided with a jaw disposed approximately at right angles to its shank and having a laterally disposed shaft engaging portion, and a sliding jaw mounted on the member 1 and located below the laterally disposed shaft engaging portion, substantially as described.

3. A tool, comprising the member 2 having a jaw provided at opposite sides with lugs, the member 1 pivoted to the member 2, and having a jaw disposed approximately at right angles to the shank, forwardly curved at the top and provided with a laterally extending shaft engaging portion having a groove, and a sliding jaw having a similar groove and located below the shaft engaging portion, substantially as described.

4. A tool, comprising two pivoted members provided respectively with an axle engaging jaw, and a shaft engaging jaw, a sliding jaw mounted on the shaft engaging jaw and pro-

vided with opposite shoulders, a shaft, and an eccentric carried by the shaft and located between the shoulders of the sliding jaw, substantially as described.

5. A tool, comprising two pivoted members provided with jaws 3 and 4, the jaw 3 having a recess forming a way, a sliding jaw mounted in the recess or way and provided with a longitudinal opening, a shaft passing through the opening and journaled on the jaw, and an eccentric mounted on the shaft and engaging the sliding jaw, substantially as described.

6. A tool, comprising the pivoted members having jaws 3 and 4, a sliding jaw arranged on the jaw 3, and provided with a longitudinal opening and having upper and lower shoulders, the upper shoulder being provided with teeth, a shaft passing through the opening of the sliding jaw, an eccentric mounted on the shaft and arranged between the shoulders of the sliding jaw and provided with teeth adapted to interlock with those of the upper shoulder, and a spring arranged within the sliding jaw for lifting the same, substantially as described.

7. A tool, comprising the pivoted members provided with jaws 3 and 4, the jaw 3 having an inward extending hollow stud and provided with a groove forming a way, a sliding jaw mounted in the groove or way, and having a longitudinal opening and provided with upper and lower shoulders, a shaft journaled on the jaw 3 and passing through the opening of the sliding jaw and having a thumb piece, an eccentric mounted on the shaft and located between the shoulders of the sliding jaw, a plate arranged on the outer face of the eccentric and receiving the shaft and the pivot of the members, and a bolt passing through the hollow stud and the plate, 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 R. BAXTER.

Witnesses:

C. E. PETERS,
O. M. FARBER.