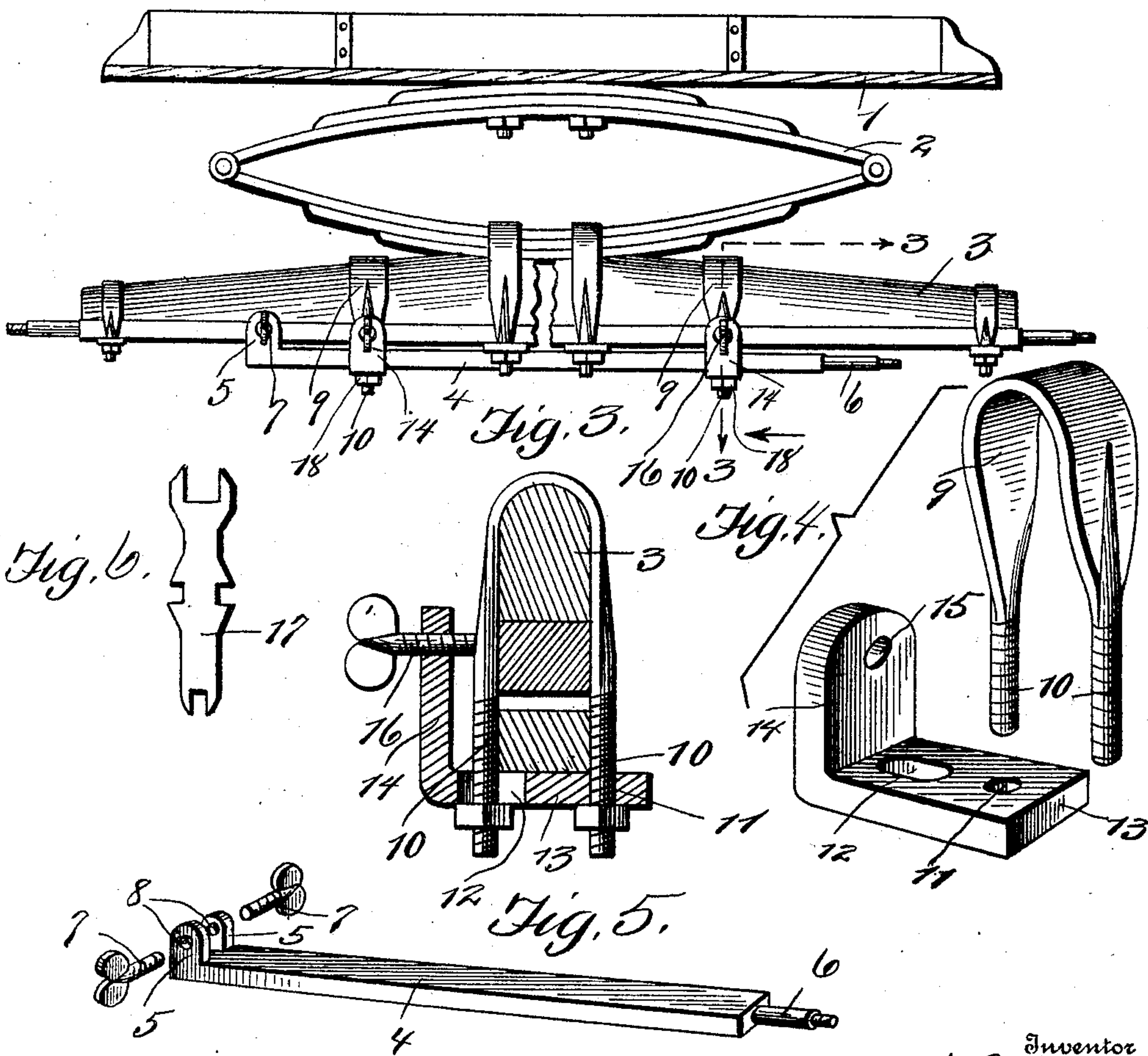
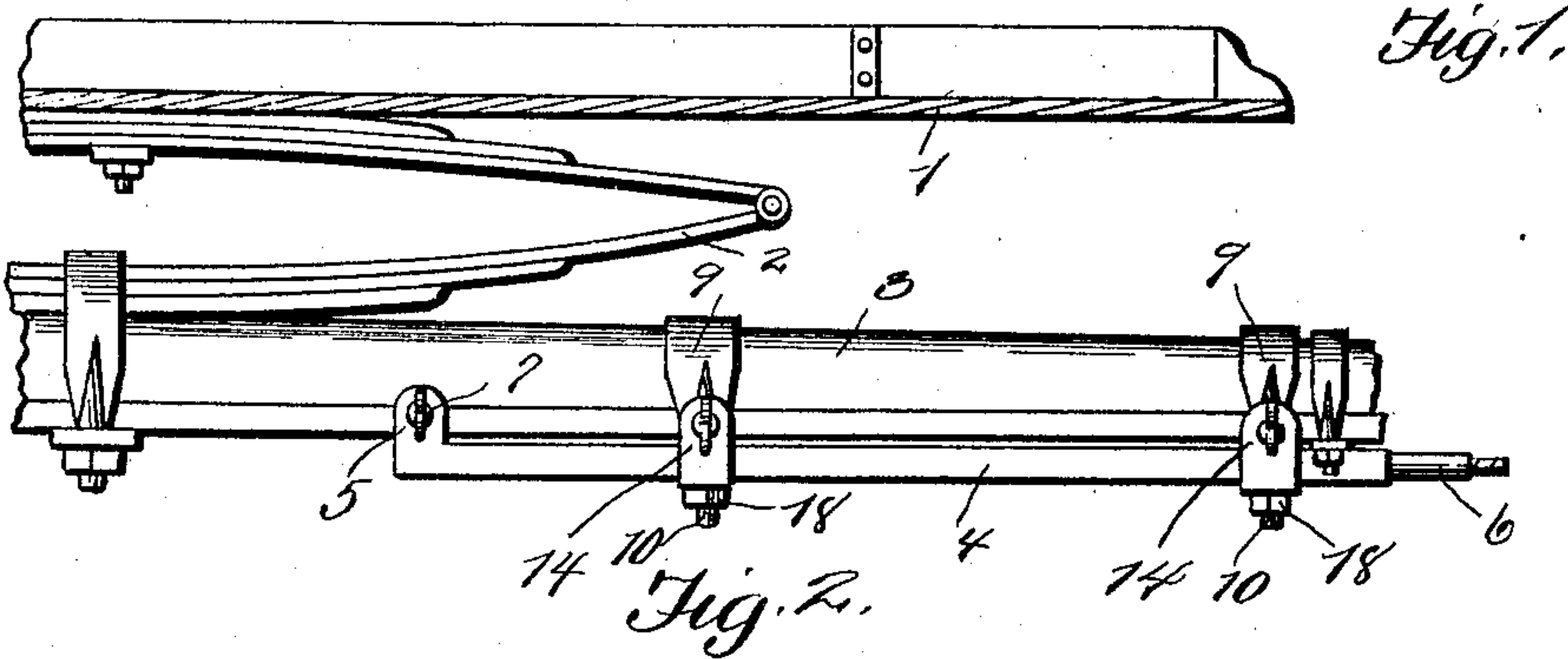


No. 795,791.

PATENTED JULY 25, 1905.

S. L. FADER.  
BROKEN AXLE REPAIRER.  
APPLICATION FILED APR. 21, 1905.



Witnesses  
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# UNITED STATES PATENT OFFICE.

SAMUEL L. FADER, OF BAY SIDE, CANADA.

## BROKEN-AXLE REPAIRER.

No. 795,791.

Specification of Letters Patent.

Patented July 25, 1905.

Application filed April 21, 1905. Serial No. 256,819.

*To all whom it may concern:*

Be it known that I, SAMUEL L. FADER, a subject of the King of England, residing at Bay Side, Halifax county, Nova Scotia, Canada, have invented certain new and useful Improvements in Broken-Axle Repairers, of which the following is a full, clear, and exact description.

This invention relates to certain new and useful improvements in devices for repairing broken axles; and it has for its objects, among others, to provide a simple and cheap improved device by means of which a broken axle can be easily and quickly repaired and by which the wheel is not thrown out of its normal track or path. I employ attaching means of such a nature as to adapt the repairer for use in connection with axles of different sizes.

My improvement can also be used for repairing a broken shaft and when used to repair an axle it may be used either to repair a break near the end or at the center and may remain in place as long as may be desired.

The repairer is designed to be carried in the wagon, in a box, under the seat, or elsewhere, as may be found most convenient, and all that is required to adjust it in position is to place it beneath the broken part and apply the clips and their fastening means, which can be done in a few minutes.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification, and in which—

Figure 1 is an elevation showing the device applied to a broken axle where the break has occurred at the end. Fig. 2 is a similar view showing the device applied to an axle broken near the center. Fig. 3 is an enlarged vertical section through the line 3 3 of Fig. 2. Fig. 4 shows in perspective one of the clips and its plate. Fig. 5 is a perspective view of the stub-axle and two of its attaching set-screws. Fig. 6 shows a wrench to be carried with the repairer.

Like numerals of reference indicate like parts throughout the several views in which they appear.

Referring now to the details of the drawings, 1 designates a portion of the body of a

wagon, 2 the spring, and 3 the axle, all of ordinary construction.

4 designates my attachable axle or axle repairer, which may be of any desired length and thickness and formed at one end with the lugs 5, extending upward at right angles from the body portion, as seen best in Fig. 5, and at the other end with a spindle or skein 6, adapted to serve in lieu of the ordinary spindle or skein when the device is applied as seen in Fig. 1.

In practice the supplemental axle 4 is placed in position beneath the axle 3, where it is secured by suitable clips, as will soon be described.

In Fig. 1 I have shown the device as applied to an axle broken at the end and requiring a new spindle or skein. In this application the supplemental axle 4 is applied near the end of the axle, so that the skein or spindle 6 extends to a position in vertical alignment with the position occupied by the spindle of the axle, so that when the wheel is applied it will track with and not be out of track with the other wheel. The repairer 4 is secured rigidly in position beneath the axle by means of the set-screws 7, which are engaged in openings 8 in the lugs 5 and engaged with opposite faces of the axle 3, as will be readily understood from Fig. 1 when taken in connection with Fig. 5, and by the clips 9, which pass over the axle 3 and have their screw-threaded ends 10 passed through openings 11 and 12 in a plate 13, one of said openings, as 12, being elongated, as best seen in Figs. 3 and 4, for adjustment, the said plate being extended beneath the supplemental axle 4, as seen best in Fig. 3, and provided with the vertical right-angled extension 14, having an opening 15, through which passes a set-screw 16, which is designed to engage one of the legs of the clip, as shown best in Fig. 3. As many of these clips as may be found necessary may be employed.

In Fig. 6 I have indicated at 17 a wrench adapted for use in connection with the different nuts employed in securing the device.

18 represents nuts on the lower ends of the threaded legs of the clips.

The elongated openings 12 in the plates 13 permit adjustment, so that the legs of the clip may be opened or closed to accommodate the same to a wider or narrower axle. The set-screw 16 serves to hold the same firmly in adjusted position.



If the axle be broken at or near the center, the device is applied in the same way, being adjusted so that the member 4 will bridge the break in the axle, as seen clearly in Fig. 2. The repairer does not interfere with the springs or their clips and may be allowed to remain in use as long as necessary.

When not in use, the repairer and its attaching means may be carried in a small box made for the purpose in the bottom of the wagon or in any other convenient place. Its ease of application and ready adjustment to suit different axles make it an ever ready device which will be found most valuable.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What is claimed as new is—

1. A broken-axle repairer comprising a supplemental axle with lugs at one end and a spindle at the other, and clips and set-screws for securing the same in place upon an axle.

2. A broken-axle repairer comprising a supplemental axle with a spindle at one end and adapted to be secured to the under side of an axle, a plate with elongated slot, a clip and a set-screw as and for the purpose specified.

3. A broken-axle repairer comprising a supplemental axle with spindle at one end

and lugs at the other end, set-screws engaged in said lugs, a clip to embrace the axle and the supplemental axle and adjustable means for coöperation with said clip and axle as set forth.

4. A broken-axle repairer comprising a supplemental axle with spindle at one end and lugs at the other, set-screws engaged in said lugs to engage opposite faces of an axle, a clip, a plate with openings to receive the legs of the clip, one of said openings being elongated, and a set-screw engaged in a vertical extension of said plate as and for the purpose set forth.

5. A supplemental axle having a spindle at one end and lugs at the other end, set-screws engaged in said lugs to engage opposite faces of an axle, a plate with horizontal portion with openings one of which is elongated and a vertical extension with an opening, and a set-screw engaged in the opening of the extension and engaged with one of the legs of said clip.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

SAMUEL L. FADER.

Witnesses:

FRANK A. GILLIS,  
J. W. HUNTER.