

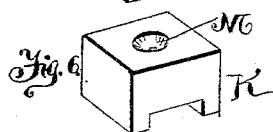
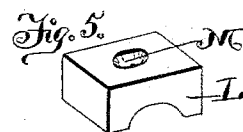
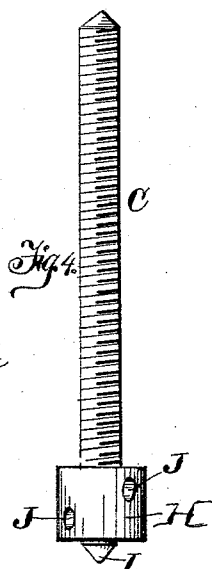
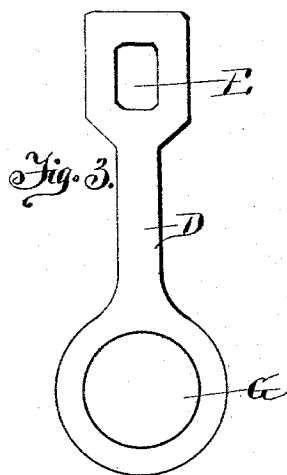
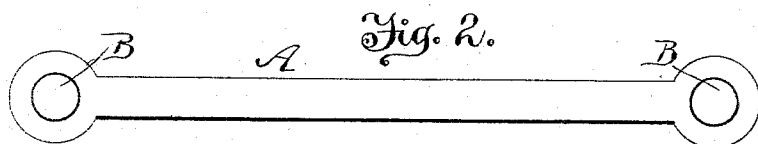
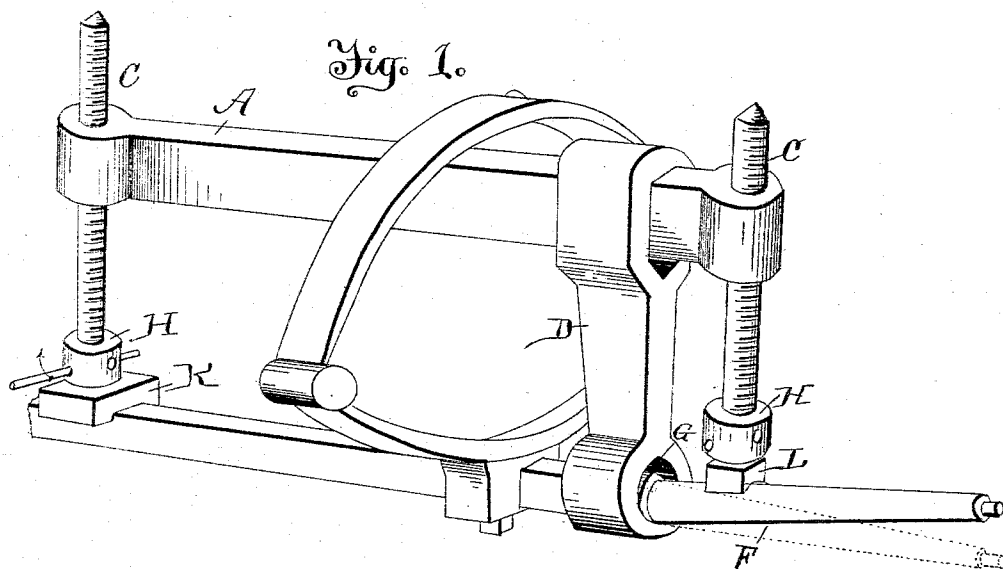
(No Model.)

G. L. COLLIS.

MACHINE FOR STRAIGHTENING AND SETTING AXLES.

No. 532,030.

Patented Jan. 8, 1895.



Witnesses:
L. Schaeffer.
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UNITED STATES PATENT OFFICE.

GEORGE LUSH COLLIS, OF MUNCIE, INDIANA.

MACHINE FOR STRAIGHTENING AND SETTING AXLES.

SPECIFICATION forming part of Letters Patent No. 532,030, dated January 8, 1895.

Application filed April 23, 1894. Serial No. 508,850. (No model.)

To all whom it may concern:

Be it known that I, GEORGE LUSH COLLIS, a citizen of the United States, residing at Muncie, in the county of Delaware and State of Indiana, have invented certain new and useful Improvements in Machines for Straightening and Setting Axles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to that class of devices that are used for straightening and properly setting such as carriage, buggy and light and heavy vehicle axles, and the objects are to construct a cheap, simple and durable device for that purpose. I attain these objects by the mechanism illustrated by the accompanying drawings, in which—

Figure 1 is a perspective view of my device applied to a carriage axle that has been bent upward at the inner end of the spindle, with dotted lines representing the spindle after it has been pressed down in its proper shape.

Fig. 2 is a top plan or "edge" view of the beam. Fig. 3 is an edge view of a part of my invention. Fig. 4 is an elevation of one of the adjusting set screws; and Figs. 5 and 6 are detail views.

Similar letters refer to similar parts throughout the several views.

A is an iron beam having each end enlarged and through which a screw threaded hole B is made, and in these holes the outer or upper ends of the adjusting set screws C C work, all as shown in Fig. 1.

The connecting link or bar D is movably secured on the beam A so that the said bar will stand at right angles to the beam and it may be slid along the said beam at any place desired, as the opening E in the bar is some larger than the body of the beam A. The bar D extends down far enough to admit of the axle F passing through the hole G in the said bar, all as shown in Fig. 1.

Each of the set screws C C is provided with a head H on its lower end. On the under side of the said head is a small pivot or center point I, and through the said head is made two holes J J, all of which is clearly shown in Figs. 1 and 4.

K represents a removable bearing block and

is provided on its upper face with a depression M in which the point I of the screw C rests when the device is in use. The under surface of the block K is formed with a squared cutaway portion adapted to fit over the squared portion of the axle.

L is a similar removable bearing block except that its under side is formed with a curved cutaway surface adapted to rest on the spindle.

The operation of my invention is as follows: Where an axle is to be set, the machine is placed on the axle according to where the bend is to be made, and the machine may be set underneath, at one side, or on top of the axle. In Fig. 1, I show a spindle bent upward, and the machine applied on the top of the axle in order to press the end of the spindle down to its proper alignment, as indicated by dotted lines in the said figure. In straightening and setting a crooked axle like that shown in Fig. 1, I first place the beam over the axle, allowing the spindle to pass through the hole G in the bar D and stop just beyond the crook or on the collar on the inner end of the spindle. I then place the block K under the inner screw and on top of the axle, and then place the block L on top of the spindle near the bend, after which I turn the set screws C C down until they become tight. Then by placing a small rod N into or through one of the holes J in the inner screw and turning the rod as indicated by the arrow in Fig. 1, it will run the inner end of the beam up and cause the block L to press harder on the spindle than the block K does on the axle, on account of the block L being so close to the bar D. In turning the screws C C it is only necessary to turn the outer one over the block L a sufficient amount to cause the beam A to stand parallel with the axle, and the screw over the block K being turned until the spindle is pressed down to its proper place. This same operation is performed when the device is set underneath or at one side of the axle, the bar D always being adjusted on the beam so as to cause the block L to properly bear upon or near where the bend is to be made or corrected. I always use the blocks K and L to fit the surface of the axle or spindle, using the block L over a round or oval surface and the block K on flat surfaces.

Having thus described my invention, I claim the following and desire to secure the same by Letters Patent:

1. In an axle straightening device, the combination with the beam, of a connecting bar slidingly secured on the same and having an aperture in its end, set screws C, C at opposite ends of the beam and removable bearing blocks having respectively squared and curved cutaway under portions, substantially as described.

2. In an axle straightening device, the combination with the beam having screw threaded

apertures in its opposite ends, of set screws engaging the apertures, removable bearing blocks for the ends of the screws and a connecting bar slidingly secured on the beam having an aperture in its end, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE LUSH COLLIS.

Witnesses:

B. F. DAY,

D. W. BYRAM.