

(No Model.)

2 Sheets—Sheet 1

C. H. WOODALL.
AXLE CUTTING MACHINE.

No. 512,426.

Patented Jan. 9, 1894.

FIG. 1.

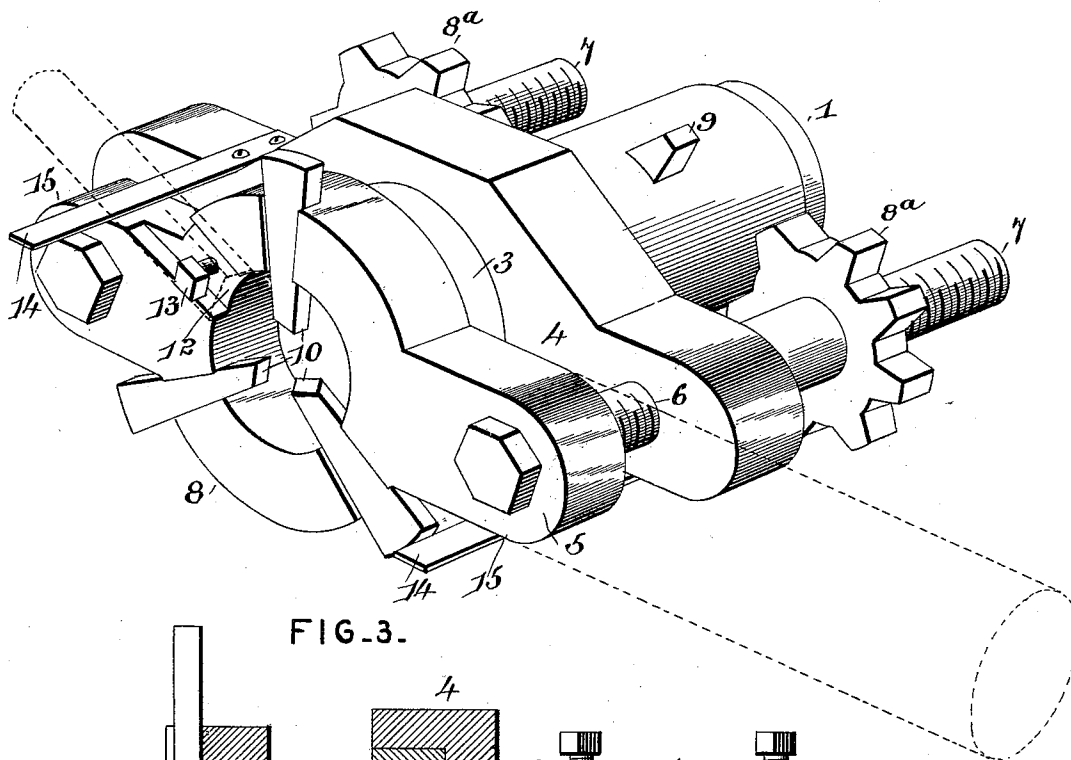
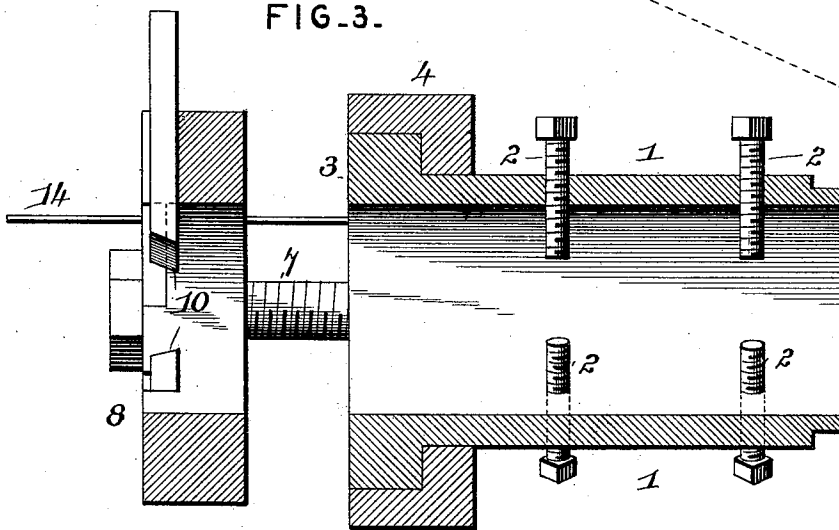


FIG. 3.



Inventor

Charles H Woodall

Witnesses

Jas. H. McLaughlin
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By His Attorneys,

C. A. Snow & Co.

(No Model.)

2 Sheets—Sheet 2.

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AXLE CUTTING MACHINE.

No. 512,426.

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FIG. 2.

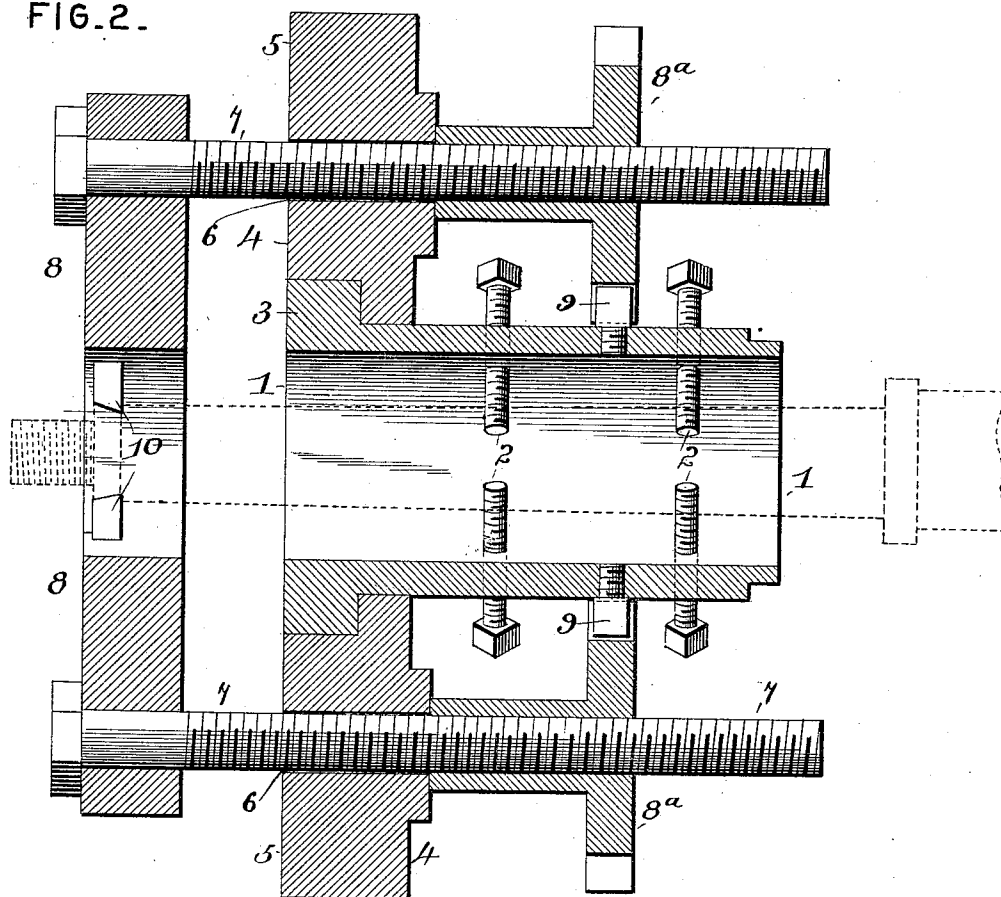
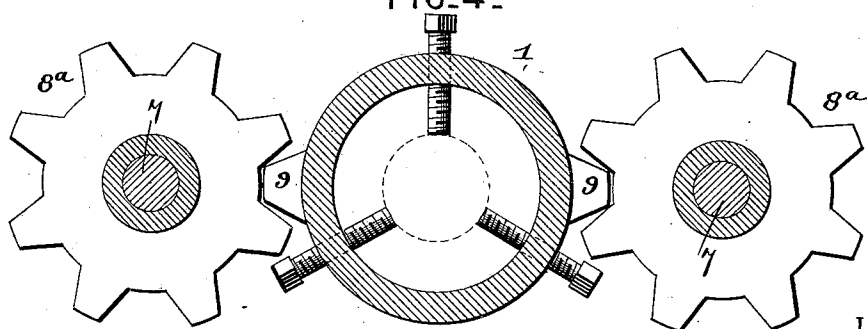


FIG. 4.



Inventor

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N. H. Riley

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By *his* Attorneys,

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UNITED STATES PATENT OFFICE.

CHARLES H. WOODALL, OF THOMASVILLE, GEORGIA, ASSIGNOR OF ONE-
FOURTH TO W. C. SNODGRASS AND B. F. HAWKINS, OF SAME PLACE.

AXLE-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 512,426, dated January 9, 1894.

Application filed September 22, 1893. Serial No. 486,215. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. WOODALL, a citizen of the United States, residing at Thomasville, in the county of Thomas and State of Georgia, have invented a new and useful Axle-Cutting Machine, of which the following is a specification.

The invention relates to improvements in axle cutting machines.

The object of the present invention is to improve the construction of axle cutting machines, and to provide a simple and inexpensive one adapted to be readily applied to an axle of a vehicle, and capable of quickly reducing the outer end of a spindle to enable the threaded portion thereof to be extended inward in order that the wear may be readily taken up without employing additional washers.

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 an axle cutting machine embodying the invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a similar view taken at right angles to Fig. 2. Fig. 4 is a transverse sectional view.

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

1 designates a sleeve adapted to receive a spindle of an axle and to be secured to the same by annular series of clamping screws 2, which are arranged in threaded openings or perforations of the sleeve, and are provided at their outer ends with squared heads, and have their inner ends projecting into the sleeve to engage an axle. The outer end of the sleeve is provided with an annular flange 3, and is swiveled in a central opening of a transverse frame 4, which has its central opening enlarged at its outer face to receive the annular flange 3.

The transverse frame 4 is adapted to revolve on the outer end of the sleeve, and its ends may be extended to form handles for revolving the frame. The ends of the transverse frame are provided with openings 6, in which

are arranged parallel longitudinally disposed feed-screws 7 carrying a cutter-head 8 at their outer ends, and having mounted on them at the inner side or face of the transverse frame pinions 8^a arranged to be engaged by lugs or teeth 9 of the sleeve 1. The pinions are provided with extended hubs or sleeves, and are interiorly threaded to engage the feed screws; and the lugs or teeth 9 are preferably two in number, and are disposed at diametrically opposite points on the sleeve 1, whereby the pinions will be simultaneously actuated every half revolution of the frame 4 to feed knives 10 of the cutter head.

The cutter head and the transverse frame rotate together on the sleeve 1, and the knives are secured diametrically or radially of the cutter head, and are adapted to be adjusted longitudinally to engage a spindle of an axle at the inner terminus of the threaded portion thereof to reduce the spindle at that point to enable the reduced portion to be tapped to extend the threaded portion in order that the axle nut may be screwed up or inward a sufficient distance on the spindle to take up all wear.

The cutter-head is provided on its outer face with a recess 12 and a screw 13 to enable a suitable handle to be attached at that point for revolving the parts, but as before explained the ends of the transverse frame may be extended to form opposite handles. The ends of the transverse frame are provided at opposite sides with outward projecting flanges or plates 14 extending on opposite sides of projections or extensions 15 of the cutter head to take the strain therefrom. The plates 14 bear against opposite sides of the extensions 15, and cause the cutter head to rotate freely with the frame 4 without severe strain of the screws and without causing the latter to bind. The extensions or ears 15 of the cutter-head are provided with openings to receive the outer ends of the feed screws, which are provided with heads.

It will be readily seen that the machine is simple and comparatively inexpensive in construction, that it is adapted to be readily applied to an axle of an ordinary vehicle, and that it is capable of readily reducing the outer portion of a spindle to enable the threaded

part thereof to be readily extended inward in order that wear may be readily taken up.

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 an axle-cutting machine, the combination of a sleeve adapted to receive an axle and provided with means for clamping it on the same and having the annular flange 3 at its outer end, the transverse frame 4 rotatively mounted on the outer end of the sleeve and provided with an annular recess receiving the flange 3, a cutter head arranged at the outer end of and in advance of the sleeve, feed screws passing through the frame and carrying the cutter-head, the lugs 9 arranged on the exterior of the sleeve and having threaded shanks secured to the same, and the pinions receiving the feed screws and arranged to be engaged by said lugs and provided with elongated hubs bearing against the frame, substantially as described.

2. In an axle-cutting machine, the combination of a sleeve adapted to receive an axle and provided with clamping means and having an exterior annular flange at its outer end, the transverse frame mounted on the sleeve and provided with an annular opening receiving said flange, a cutter head arranged at the outer end of the sleeve, feed screws passing through the frame and carrying the cutter head, lugs arranged on the exterior of the sleeve, pinions receiving the feed screws and arranged to be engaged by the lugs and bearing against the frame, and the outwardly extending plates 14 arranged on opposite sides of the cutter head and supporting the same, 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.

CHARLES H. ^{his} X WOODALL.
mark

Witnesses:

R. A. WOODALL,
W. T. DOW.