

WILBUR & TUTTLE.

Carriage Axle.

No. 86,959.

Patented Feb. 16, 1869.

Fig. 2

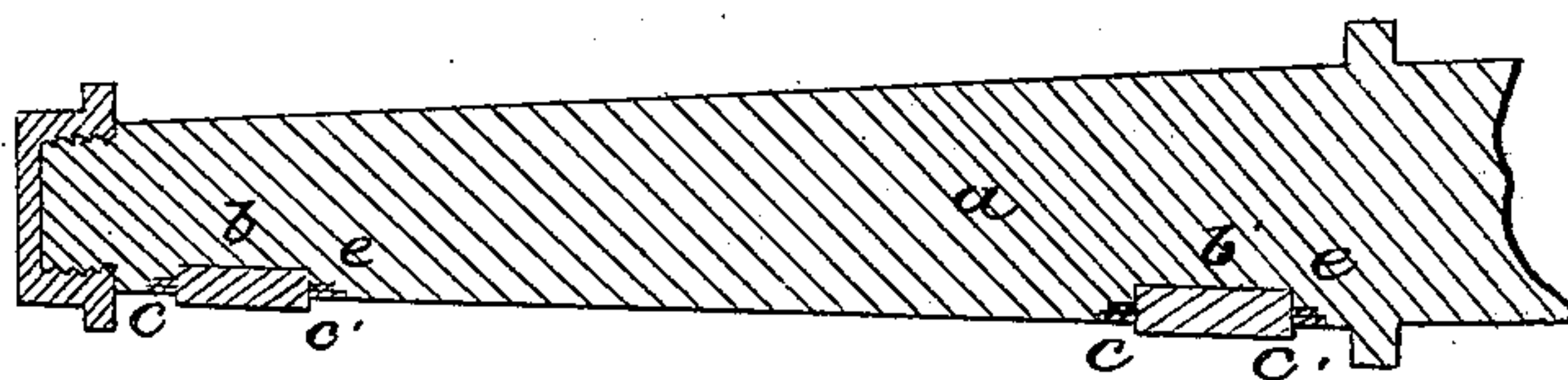
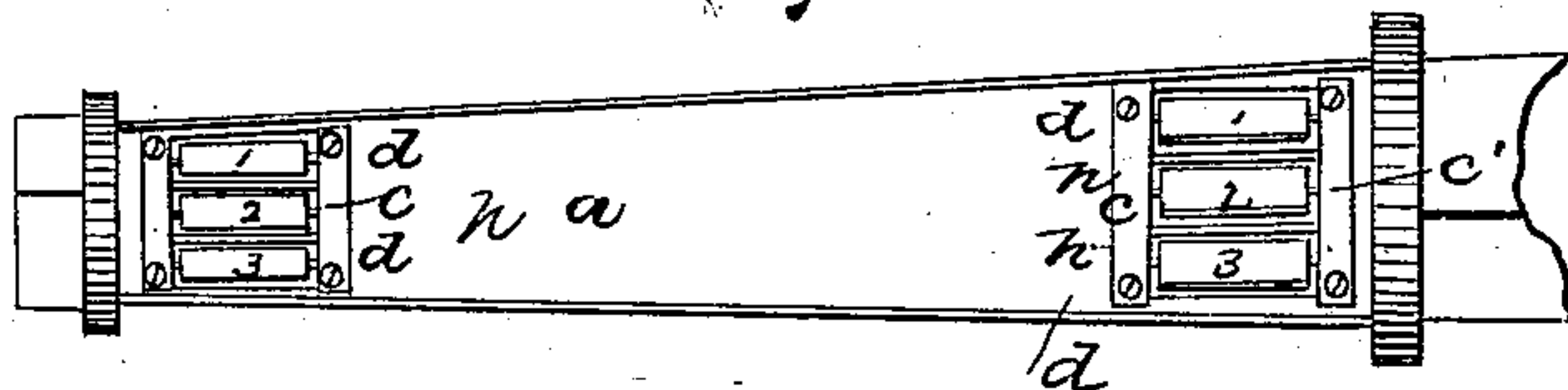


Fig. 1.



WITNESSES
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JOHN F. WILBUR AND TRUE TUTTLE, OF POWNAL, MAINE.

Letters Patent No. 86,959, dated February 16, 1869.

IMPROVED CARRIAGE-AXLE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, JOHN F. WILBUR and TRUE TUTTLE, of Pownal, in the county of Cumberland, and State of Maine, have invented a new and useful Improved Carriage-Journal; and we hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 shows a view of the bottom side of a carriage-journal with our improvement attached.

Figure 2 shows a section.

The purpose of our invention is to provide a method for diminishing the friction of carriage-wheels upon the journal of the axle.

In the accompanying drawings, *a* shows the journal of a carriage-axle, as common.

In the lower side thereof are cut recesses, as illustrated at *b b'*.

Into these recesses are placed three small rollers, 1, 2, 3.

These three rolls are so arranged as to revolve on axes fitted into small holes, made for their reception, in the ends of the recesses *b b'*.

Over these axes or journals, thus placed, we next apply metal strips or bands *c c'*, to confine the journals of the rolls 1, 2, 3, in their positions, before indicated.

These bands we attach to the journal *a* by means of screws *d*. Thus the rolls 1, 2, 3, are held in their places, and allowed to revolve upon their separate journals *e*.

Between the rolls 1, 2, 3, are placed the divisions or cleaners *h*. The purpose of these is to keep the rolls in position, and prevent them from gumming up with the lubricating-substance applied to the carriage-axles.

When the rollers 1, 2, 3, need repair, they can be taken out by removing the screws *d* and lifting the metal band *c*, and as readily replaced and secured.

We do not claim the attachment of friction-rolls to shafts or journals.

We do not claim a rectangular bar embedded in an axle, and curved in an arc along the axle-tree, and fastened thereto by a screw, the rollers resting their ends in the ends of trapezoidal blocks, which slide and are adjusted in the trapezoidal gutter in the skein; neither do we claim friction-rollers hung in disk-bearings, in combination with partitions enclosed in the axle-box. (Patents of Morrett and Watts, No. 80,758, August 4, 1868, and of H. Brady, No. 67,946, August 20, 1867.)

We do not claim the rollers broadly, but in combination, as herein described; but

What we do claim, and desire to secure by Letters Patent, is—

The arrangement of rolls 1, 2, 3 in the recesses *b b'*, cleaners *h*, metal bands *c c'*, on a carriage-journal, as herein specified.

JOHN F. WILBUR.
TRUE TUTTLE.

Witnesses:

RUFUS W. WATERHOUSE,
JOHN F. WATERHOUSE.