

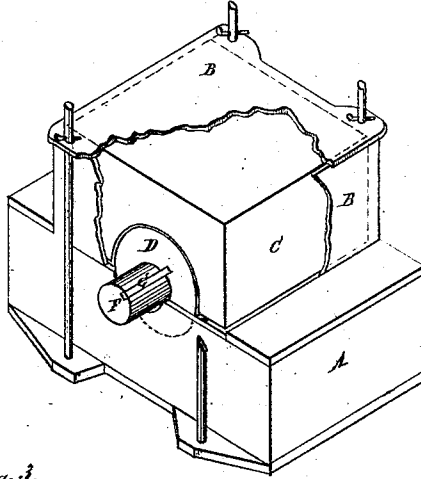
*E. Sawyer,*

*Journal.*

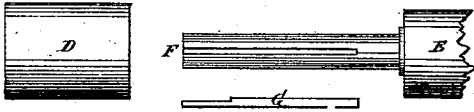
*No. 10,384.*

*Patented Mar. 29. 1870.*

*Fig. 1.*



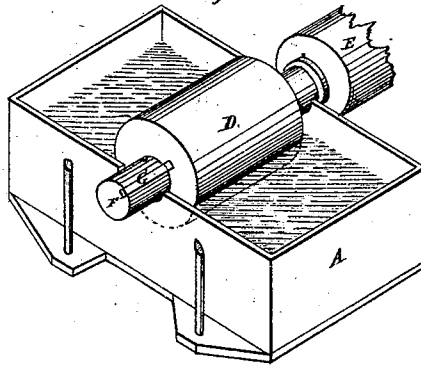
*Fig. 3.*



*Fig. 4.*



*Fig. 2.*



*Witnesses*

*Bartram North*  
*Gas H. Eunis*

*Inventor*

*E. Sawyer*  
*Per Barker Bros*

# United States Patent Office.

ENOCH SAWYER, OF HOLLOW SQUARE, ALABAMA.

Letters Patent No. 101,384, dated March 29, 1870.

## IMPROVED MODE OF LUBRICATING AXLES.

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

To all whom it may concern :

Be it known that I, ENOCH SAWYER, of Hollow Square, Hale county, in the State of Alabama, have invented a new and useful Improvement in Lubricating Axles; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification.

Similar letters indicate corresponding parts.

Figure 1 is a perspective view of the lubricating box, showing end of axle with "attachment" in place.

Figure 2 is a perspective view of the lower portion of lubricating box with "attachment" on end of axle.

Figure 3 is a front view of end of axle with "attachment" removed.

Figure 4 is a front view of end of axle with "attachment" on.

My invention consists in an improvement in the mode of lubricating axles, for carriages, cars, and other wheeled vehicles, and relates to a removable attachment fitting the end of the axle, the end of axle being reduced in size to receive it.

Its object is to remove the friction from the axle, and bring it upon the attachment, which can be replaced at any time.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is the lower portion of the box, strongly made of metal, to contain the lubricating fluid. This portion of the box can be made so as to contain enough fluid to last for several days.

B is the upper portion of box bolted to the lower part in the usual way.

C is a piece of brass or other metal fitting into the upper part of box, and made so as to receive the attachment, allowing it to revolve therein.

D represents the attachment fitting on the reduced end of axle and held in position by the key G.

E represents the end of axle.

F is the end of axle reduced in size, so as to allow the attachment to be placed thereon.

The attachment D is placed upon the reduced end of axle, and by means of the key G forming as it were a part of the axle, and revolving with it. The attachment revolves in the lubricating fluid contained in the lower portion of box. The weight of vehicle being on the upper part of the box, the attachment receives all the pressure and friction, no wear or friction coming upon the axle proper. The attachment can be removed and replaced at any time.

### Claim.

I claim as my invention—

An improvement in the mode of lubricating axles, the removable attachment D, secured by means of a key inclosed within an oil-box, substantially as and for the purpose hereinbefore set forth.

In testimony that I claim the foregoing invention, I have hereunto set my hand this 1st day of November, 1869.

ENOCH SAWYER.

Witnesses:

CHAS. L. STICKNEY,  
JAMES J. GARRETT.