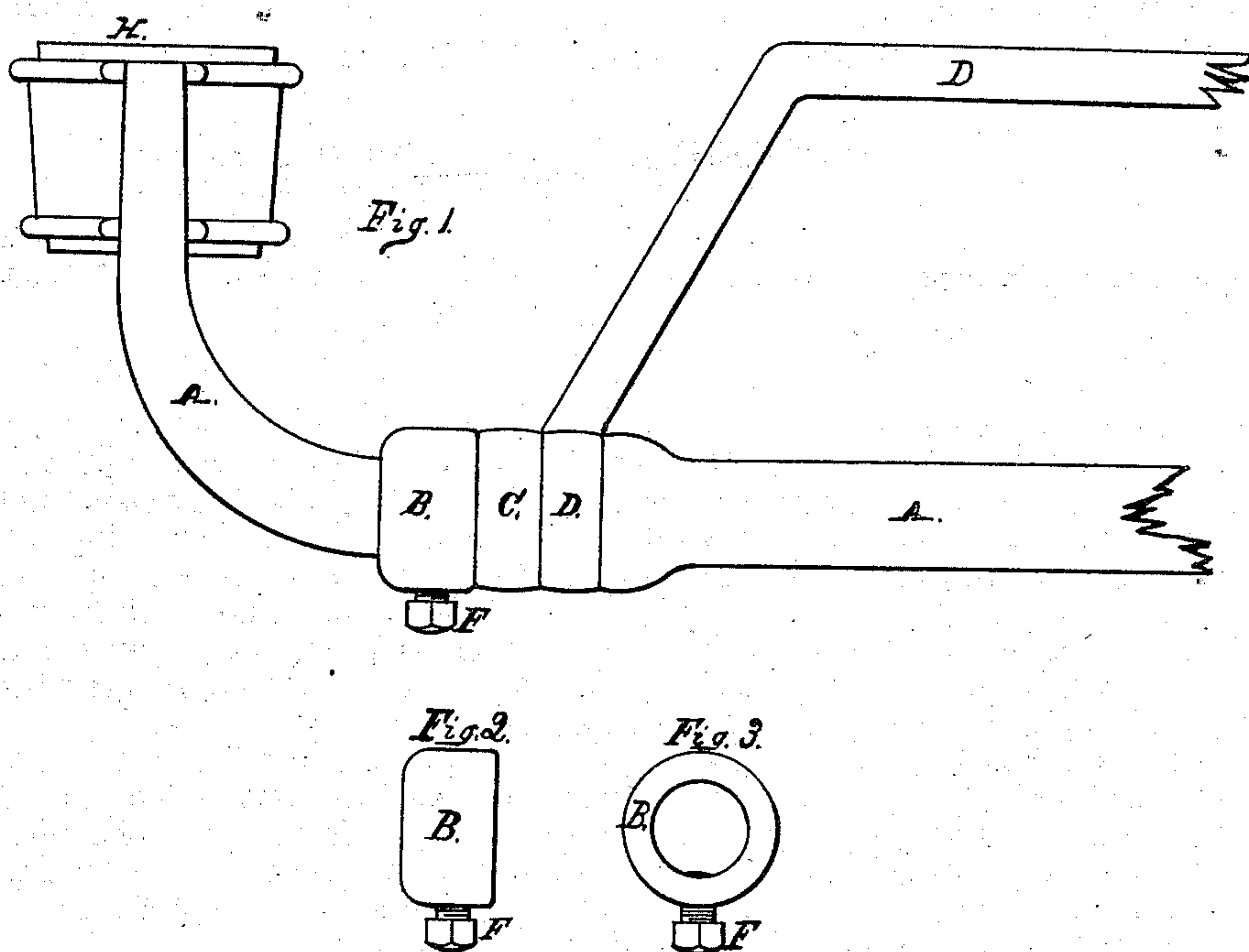


C. M. LEFFINGWELL.

Wagon-Brakes.

No. 156,428.

Patented Nov. 3, 1874.



Witnesses:

Isaac Redrow
Peter M. Snell

Inventor:

Closson M. Leffingwell
per Oscar Snell
Atty.

UNITED STATES PATENT OFFICE.

CLOSSON M. LEFFINGWELL, OF WILLIAMSBURG, OHIO, ASSIGNOR TO
EDWIN N. JACK, OF SAME PLACE.

IMPROVEMENT IN WAGON-BRAKES.

Specification forming part of Letters Patent No. **156,428**, dated November 3, 1874; application filed
August 31, 1874.

To all whom it may concern:

Be it known that I, CLOSSON M. LEFFINGWELL, of Williamsburg, Clermont county, State of Ohio, have invented an Improvement in Wagon-Brakes, of which the following is a specification:

This invention is an improvement on the invention of Edwin N. Jack, patented November 25, 1873; and consists in a ring secured to the brake-shaft outside of the places of attachment of the supporting-rods to prevent any lateral motion of the same.

In the drawings similar letters of reference indicate corresponding parts.

A is the brake-shaft; B, the ring; C, end of brace-rod at its place of attachment to the brake-shaft; D, rod for suspending the brake-shaft under the bed; F, a screw for securing the ring to its seat; H, nib-block. The relation of the ring B to the rods C and D is such that all lateral motion which would have a tendency to disarrange the parts can be taken up, and at the same time support them in a

direction which formerly has been left unguarded, thus contributing an essential benefit to the whole mechanism, with but a trifling increase in cost. The ring B, in several different forms of brakes, instead of being attached to the brake-shaft by means of a screw, is shrunk on, and is driven up to the rods from time to time as they become loose by wear.

I do not claim the ring or collar B in a general way, as that is old; nor do I claim any particular form of attachment; but, as an essential improvement on the patented invention hereinbefore referred to,

I claim—

The movable ring B, secured to the brake-shaft A outside of the places of attachment of the rods C and D, combined to operate as and for the purpose described.

CLOSSON M. LEFFINGWELL.

Witnesses:

ISAAC REDROW,
PETER M. SNELL.