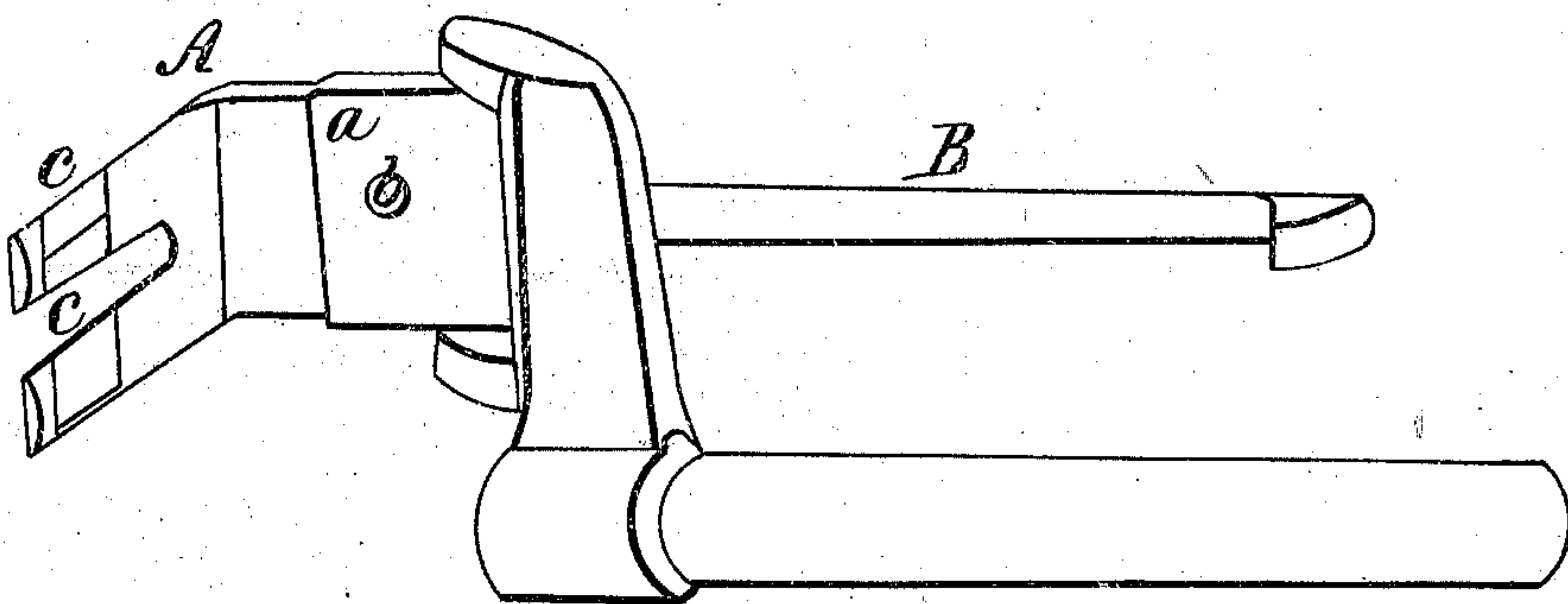


*Duce & Eddy.*  
*West Fork.*

*N<sup>o</sup> 83,267.*

*Patented Oct. 20, 1868.*



*Witnesses*  
*Ben J. Furston*  
*Wm W. Rickard*

*Inventor*  
*Wm. G. Duce*  
*Albert C. Eddy*

# United States Patent Office.

WILLIAM G. DUCE, OF BALTIMORE, CONNECTICUT, AND ALBERT C. EDDY, OF PROVIDENCE, RHODE ISLAND.

*Letters Patent No. 83,267, dated October 20, 1868.*

## IMPROVEMENT IN FILLING-FORKS FOR LOOMS.

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, WILLIAM G. DUCE, of Baltimore, in the county of New London, and State of Connecticut, and ALBERT C. EDDY, of the city and county of Providence, in the State of Rhode Island, have invented certain new and useful Improvements in Filling-Forks for Looms; and we do hereby declare that the following specification, taken in connection with the drawings making a part of the same, is a full, clear, and exact description thereof.

In the drawings, our improved filling-fork is shown in perspective.

A "filling-fork" is a device commonly employed in a power-loom, by means of which, in case the weft-thread given off by the shuttle chances to break, the driving-belt is made to shift from the fast to the loose pulley, and the loom is thereby stopped.

The device in its application to the loom is variously arranged, but consists essentially of a bell-crank lever, hung in bearings, so that it can vibrate freely. Its larger arm is slightly heavier than its shorter or forked arm, and is furnished at its extremity with a projecting catch, which catch, when permitted to lock with the end of a vibrating lever, will communicate motion, through appropriate devices, to the "belt-shipper."

The shorter or forked end of the bell-crank is so arranged in position relatively to the "lay-frame," that at each forward beat of the latter, the prongs of the fork will enter the spaces between the gridiron-bars in the lay-frame.

If the thread of weft which has been discharged from the flying shuttle is unbroken, it will be stretched taut across the space between the bars of the gridiron, and the front surface of the prongs, in entering such spaces, will bear against the thread, whereby the longer arm of the bell-crank will be kept sufficiently elevated to prevent the catch upon its end from falling into engagement with the lever which controls the belt-shipper apparatus.

In the accompanying drawing, a common form of fork is shown.

The portion A is made of India rubber, and is in form like the metallic forks in common use. It is attached to the portion B, which is made of metal, by means of a socket, *a*, in which, by set-screws, *b*, or other convenient means, it is secured.

To prevent the threads of the filling from cutting into the prongs, the latter are covered for a short distance, near their tips, with shields of very thin sheet-metal, *c c*.

What we claim as our invention, and desire to secure by Letters Patent, is—

The combination, with the filling-fork, having tines of India rubber, or other flexible and elastic material, of the protecting metallic shields *c c*, substantially as described.

WILLIAM G. DUCE.  
ALBERT C. EDDY.

Witnesses:

BENJ. F. THURSTON,  
WM. W. RICKARD.