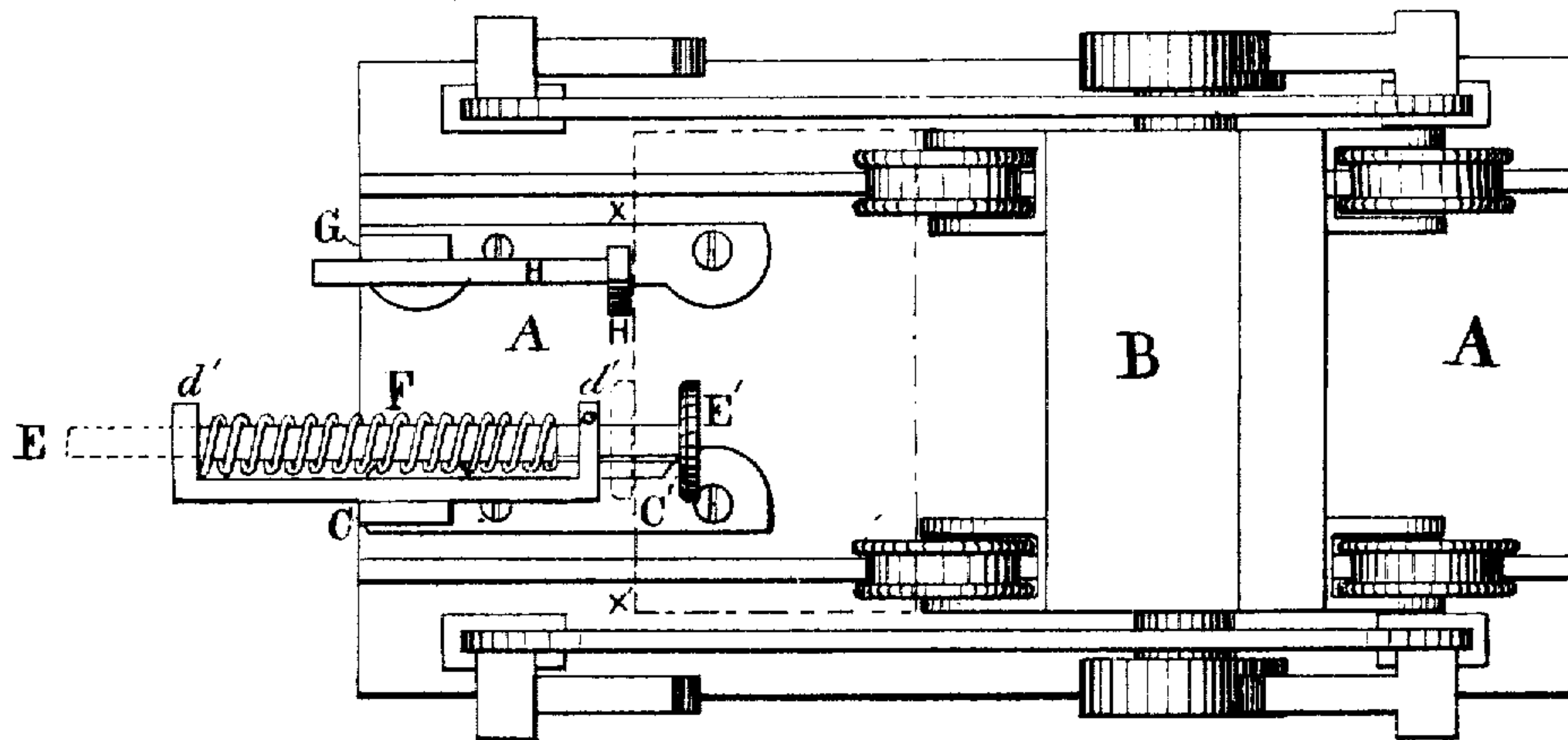


**J. W. WHITEHEAD.**  
**Buffers for Mule Carriages.**

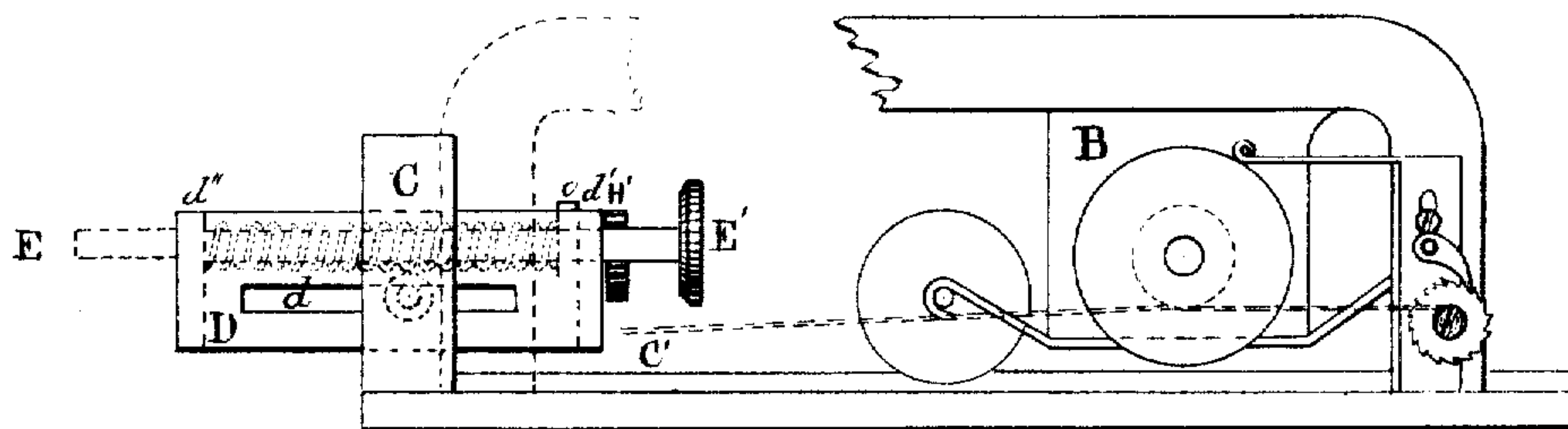
No. 166,435.

Patented Aug. 3, 1875.

*Fig. 1*



*Fig. 2.*



**Attest**

*L. Gundry Bennett*  
*W. R. Wilson*

**Inventor**

*John W. Whitehead*  
*By L. M. Bennett*  
*att'y.*

# UNITED STATES PATENT OFFICE.

JOHN W. WHITEHEAD, OF SACO, MAINE.

## IMPROVEMENT IN BUFFERS FOR MULE-CARRIAGES.

Specification forming part of Letters Patent No. **166,435**, dated August 3, 1875; application filed May 10, 1875.

*To all whom it may concern:*

Be it known that I, JOHN W. WHITEHEAD, of Saco, in the county of York and State of Maine, have invented an Improved Self-Acting Brake for Spinning-Mules, of which the following is a specification.

The nature of my invention relates to self-acting brakes for spinning-mules, and is an improvement upon the brake for which Letters Patent were granted to me January 14, 1873, numbered 134,960, and which will be more fully hereinafter described and pointed out in the claim.

In the drawing, forming part of this specification, Figure 1 is a plan view of the brake in connection with the frame and the mule-carriage. Fig. 2 is a side elevation of the same, with a part of the side frame removed to show the spring-brake and supporting standard.

A represents the platform or base upon which the rails are fastened. B is the carriage, which is similar to that shown in former patents, and with the rails, &c., requires no further description. C is a standard, fixed permanently to a bearing bar, C', which is screwed, or otherwise fastened, to the base A. D is a horizontal plate having in it a slot, *d*, and at each end brackets *d'* *d'* to support a sliding bar E, around which, inside of the brackets, is a spiral spring, F. This bar projects through the bracket *d'*, and has upon its end a brake-head or buffer, E'. On the opposite side to this brake is a standard, G, and an adjustable sliding-gage plate H with a slot in it, and on the inner end a button, H'. This standard is

fastened to the base plate in the same manner that standard C is. The plates D and H are fastened to the standards C and G by set-screws through the slots, so that they can be adjusted horizontally to any desired distance.

The operation of these devices is as follows: The gage-plate H is set forward to a given distance, as in Fig. 1, at X. The spring-brake D is then so adjusted that when the carriage, when running in, forces the brake-head E' up to the lines *x x*, Fig. 1, the resistance of the spring F will be such as to have gradually checked the motion of the carriage, and, at the same time, the power stored up in the spring will give a starting impulse to the carriage to force it back on its return, all of which serves to prevent any jar, concussion, or heavy blow when the carriage strikes in, and also to aid the head-gearing in starting the carriage on its return, and also to keep an even strain upon the threads at the time of starting, all of which will be fully understood by those familiar with the operation of spinning-mules.

Having thus described my invention, what I claim as new, and for which I desire Letters Patent, is—

1. The adjustable spring-brake D E, combined with a spinning-mule carriage, as and for the purpose described.
2. The combination of the adjustable spring-brake and an adjustable gage-frame H, as and for the purpose described.

JOHN W. WHITEHEAD.

Witnesses:

FERDINAND W. GUPTILL,  
R. L. K. GRANT.