

W. K. JOHNSTON.

Wagon Brake.

No. 91,941.

Patented June 29, 1869.

FIG. 1.

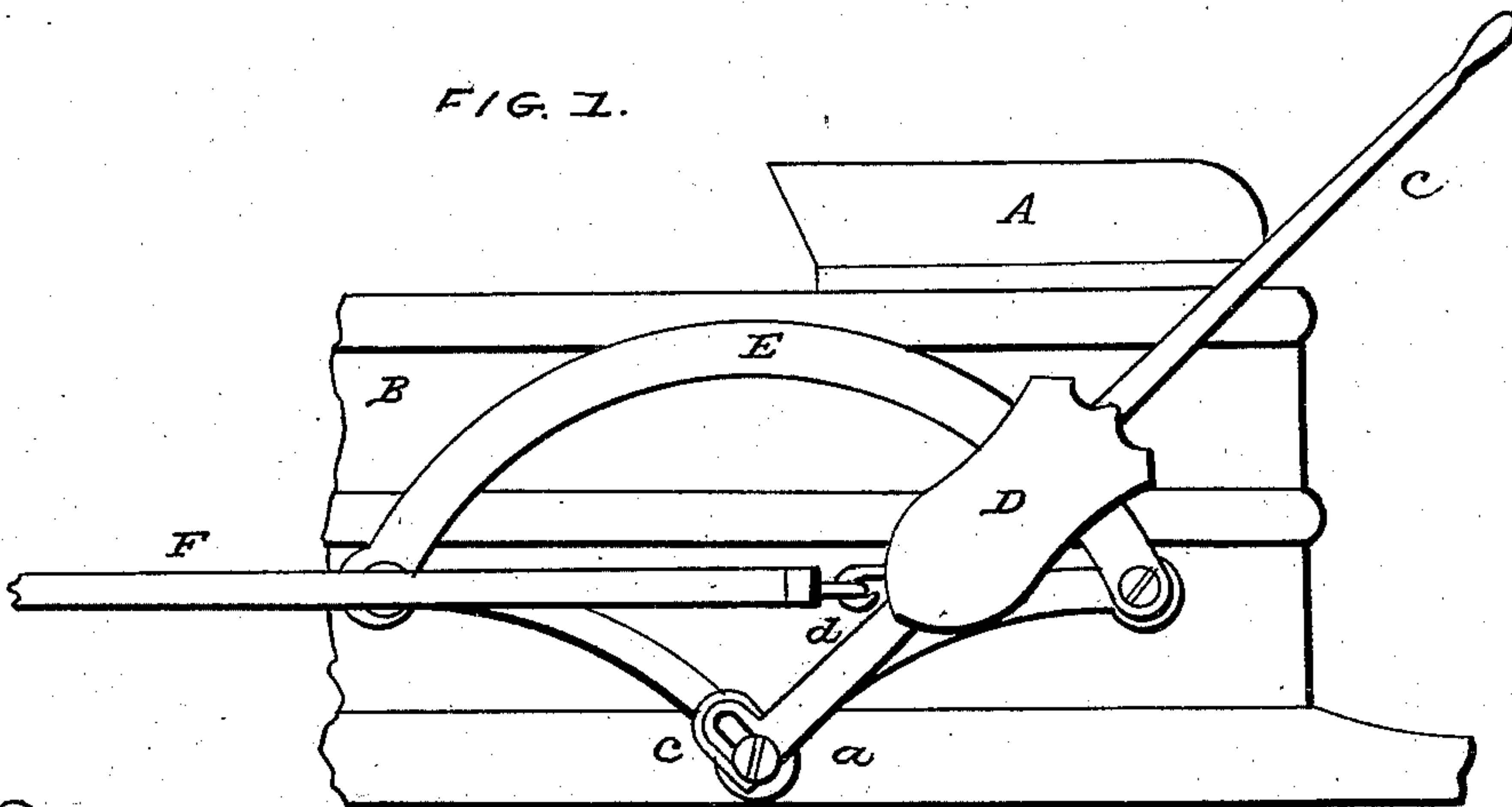


FIG. 2.

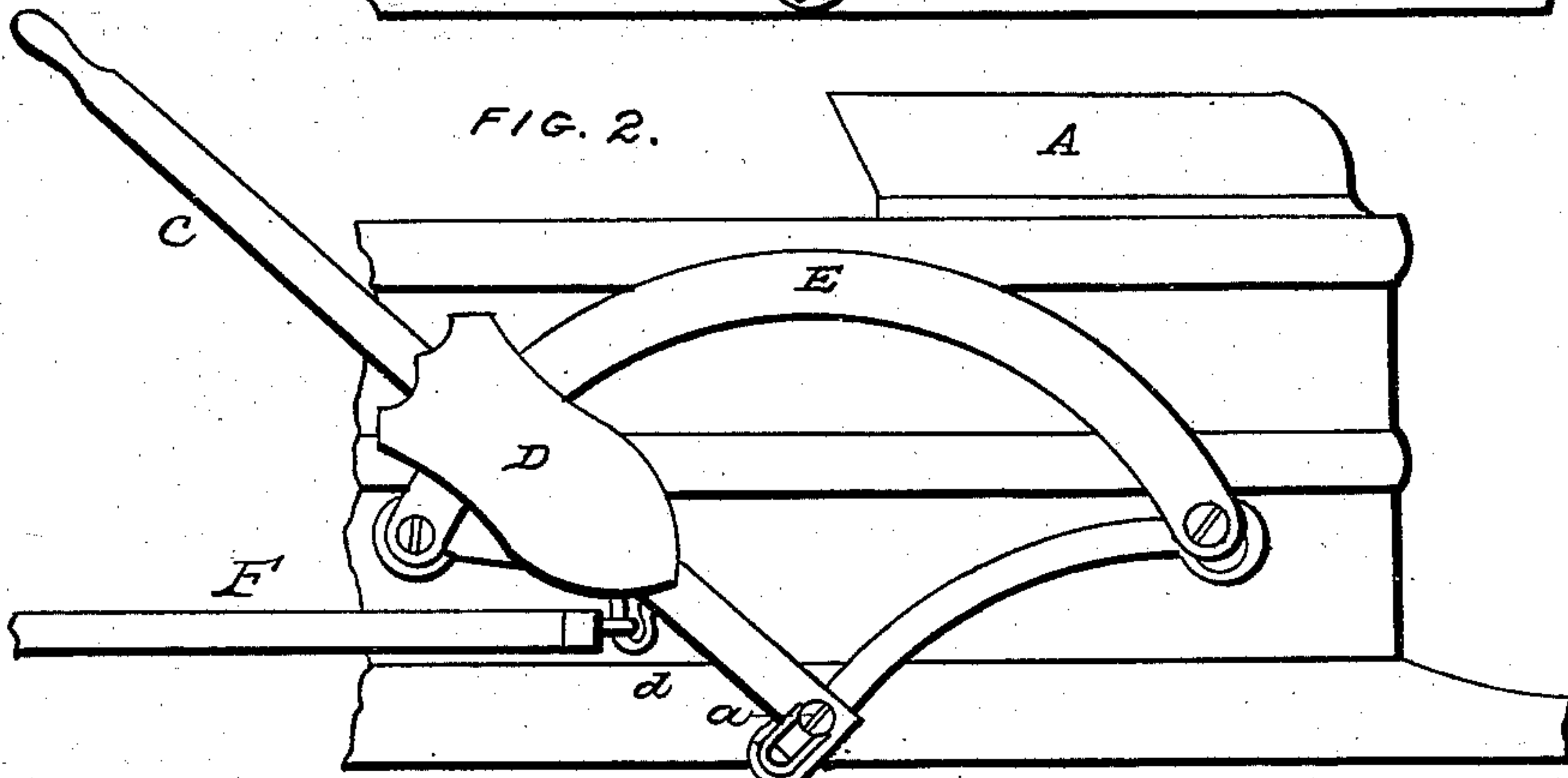


FIG. 4.

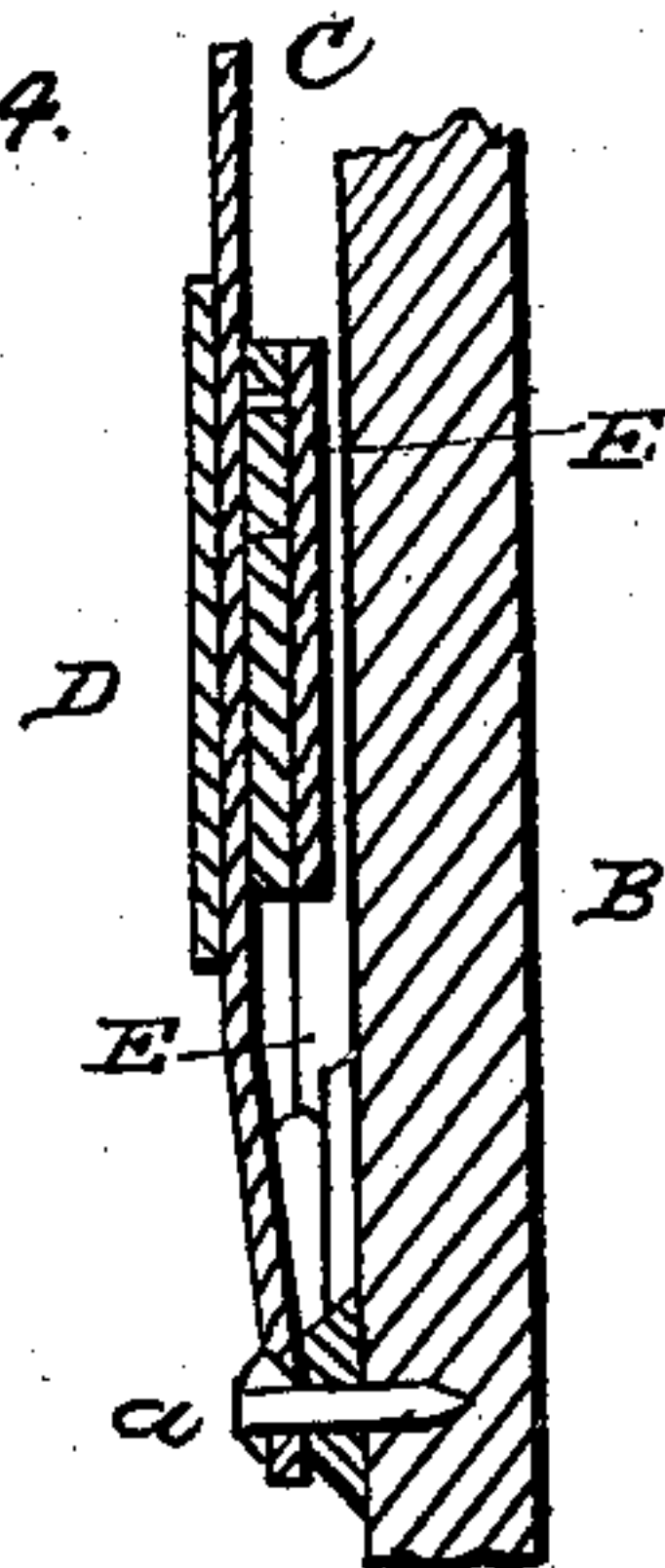
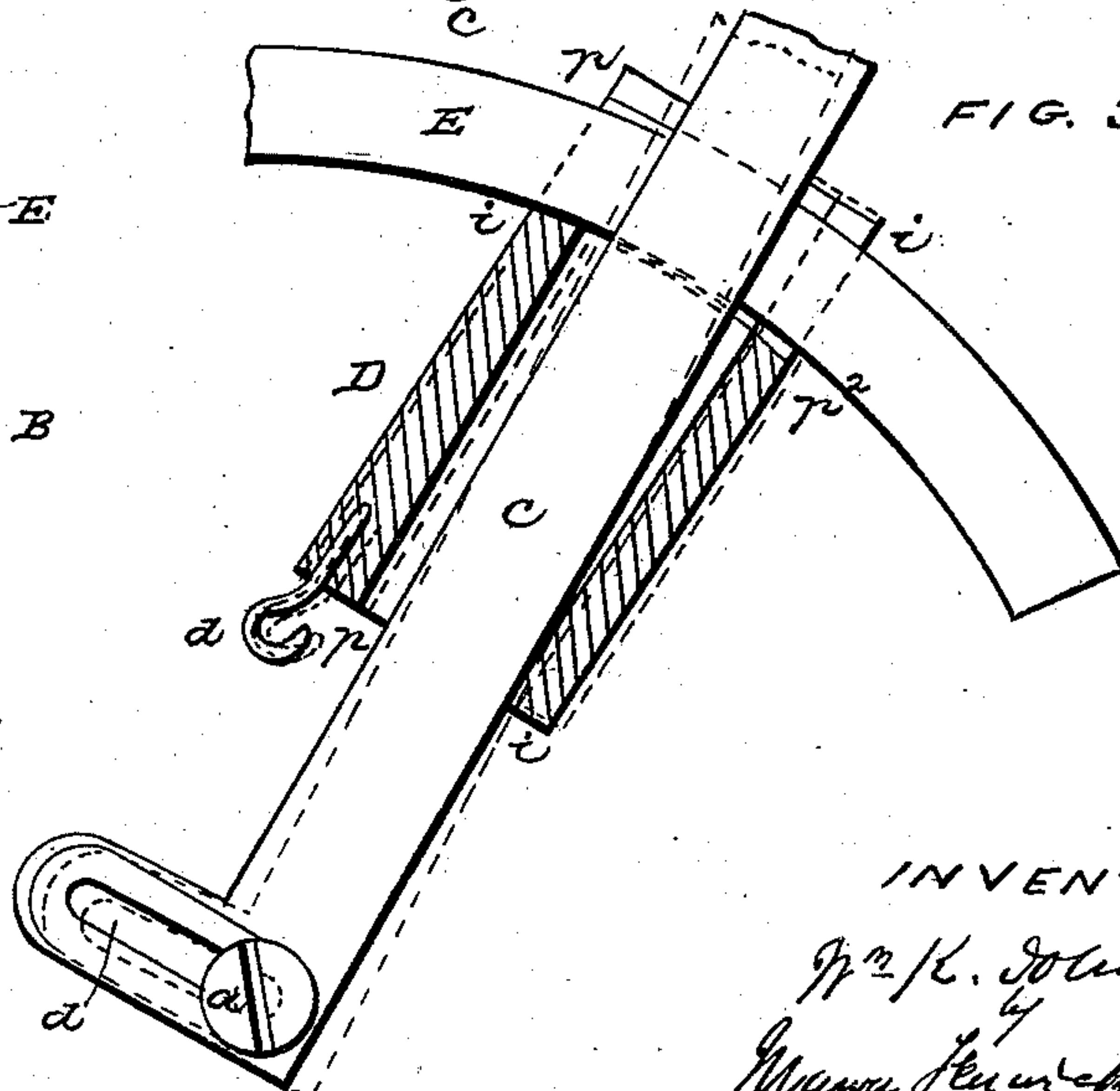


FIG. 3.



WITNESSES:

*P. J. Campbell*  
*J. C. Campbell*

INVENTOR.

*W. K. Johnston*  
*Wm. H. Smith, Attorney*



# United States Patent Office.

WILLIAM K. JOHNSTON, OF CORDOVA, ILLINOIS, ASSIGNOR TO HIMSELF, EDITH R. WYNKOOP, AND DANIEL ZIMMERMAN, OF SAME PLACE.

Letters Patent No. 91,941, dated June 29, 1869.

## IMPROVEMENT IN WAGON-BRAKES.

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, WILLIAM K. JOHNSTON, of Cordova, in the county of Rock Island, and State of Illinois, have invented a new and improved Lock for Wagon-Brakes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of one side of the body of a wagon having my brake-lock applied to it, and showing the lever when moved forward and locked.

Figure 2 is a similar view of the same parts, showing the lever when moved back to its fullest extent.

Figure 3 is an enlarged view in detail, indicating the locking-slide in section, and in two positions.

Figure 4 is a vertical transverse section through the locking-lever, its slide, and the segment.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to an improvement on the construction of locking-devices for wagon-brakes, and is designed to effect the locking of a brake by a simple device applied to the hand-lever, which is under the control of the driver stationed upon his seat.

The nature of my invention consists in a locking-slide, which is applied to the hand-lever and segment-guide, and to which the brake-rod or chain is attached, said slide being adapted for gripping and holding fast to the segment by the draught of the brake-rod upon its lower end, and for being released so as to move freely upon the segment, by the pressure of the hand-lever upon it, as will be hereinafter explained.

I am aware that latching and gripping-devices have been applied to hand-levers of wagon-locks, which would firmly hold the levers in whatever positions they might be adjusted, and allow the release of the levers by the same hand which grasped them.

These devices I dispense with, and employ an automatic locking-slide, which can be released by a simple backward movement of the lever, and which receives the strain applied to the brake-rod or chain, independent of the lever.

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

In the accompanying drawings—

A represents the driver's seat of a wagon-body, B, and E represents a segment-guide, which is secured at its ends to the side of said body in any suitable manner, so as to leave a space between it and the body between the attached ends.

C is a hand-lever, which is connected at its lower end to the wagon-body by a pivot, *a*, that passes freely through an oblong slot, *c*, formed through a rectangular portion of said lever, as shown in figs. 1, 2, 3.

This pivot-connection allows the lever to change its

axis of motion for moving a locking-box slide D, which is applied on the segment E.

The lever C should be arranged in a position near the seat of the wagon, for the convenience of the driver.

The box-slide D is adapted for receiving through it lengthwise the lever C, and also for receiving through it transversely the segments E, as clearly shown in figs. 3 and 4.

The transverse passage through said box-slide is made somewhat larger than the segment E, so as to allow this slide to rock in the plane of this segment, and the passage through this box-slide, for receiving through it the lever C, is made flaring, or larger at its upper end than it is at its lower end.

If desirable, the lower end of this slide D may be contracted, by having lips formed on it, which will impinge upon the lever C.

The chain or rod F, which is connected at its rear end to the brake-bar in the well-known manner, or in any other suitable manner, is attached to the lower rear corner of the box-slide, a hook, *d*, or its equivalent, being used for this purpose.

The operation is as follows:

During the act of pressing lever C forward to apply the brakes, this lever will press upon the box-slide D, at its front upper and lower edges, and thus hold the passage which receives the segment, in line with the upper and lower edges of this segment, and allow this box to move freely with its lever.

During this adjustment, the axis of lever C coincides with the axis of the pivot-pin *a*, as indicated in black lines, figs. 1, 2, and 3.

When the brakes are applied, and lever C released from forward pressure at its upper end, the recoil of the brake-rod F will move the lower end of box-slide D backward, and thus cause the points *i i* to bear hard against the upper and lower edges of the segment, and in this condition of things, the more force which is brought to act upon the lower end of the slide in a backward direction, the firmer will this slide gripe the segment.

To disconnect or release the brakes, it is only necessary to move the upper end of lever C backward, in doing which its lower slotted end will slip forward sufficiently far to allow this lever to press against the box-slide at the point *p*, and relieve points *i i* from pressure upon segment E.

It will be seen from this description that the locking-device D, applied to the segment C, and receiving through it the hand-lever C, serves alone as a means for securely locking the said lever wherever it may be adjusted upon the segment; and it will also be seen that the locking and unlocking of this lever are effected by the simple movements thereof, and without auxiliary attachments requiring manipulation.

It is obvious that the box-slide will operate as above

described, if the segment C is not concentric to the pivot *a*.

I do not, therefore, confine my invention to the precise construction and arrangement of the several parts set forth, as the same result may be obtained by equivalent means.

Having described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The locking-device D, applied to the segment E,

or its equivalent, and receiving through it the lever C, substantially as described.

2. The lever C, loosely attached at its lower end, and applied to a box-slide, D, which is upon a bar, E, and to which the brake-chain or rod is connected, substantially as described.

WM. K. JOHNSTON.

Witnesses:

SETH S. HOBART,  
F. G. RANSBROOK.