

B. G. FITZHUGH.

Harvester.

No. 54,466.

Patented May 1, 1866.

FIG. 1.

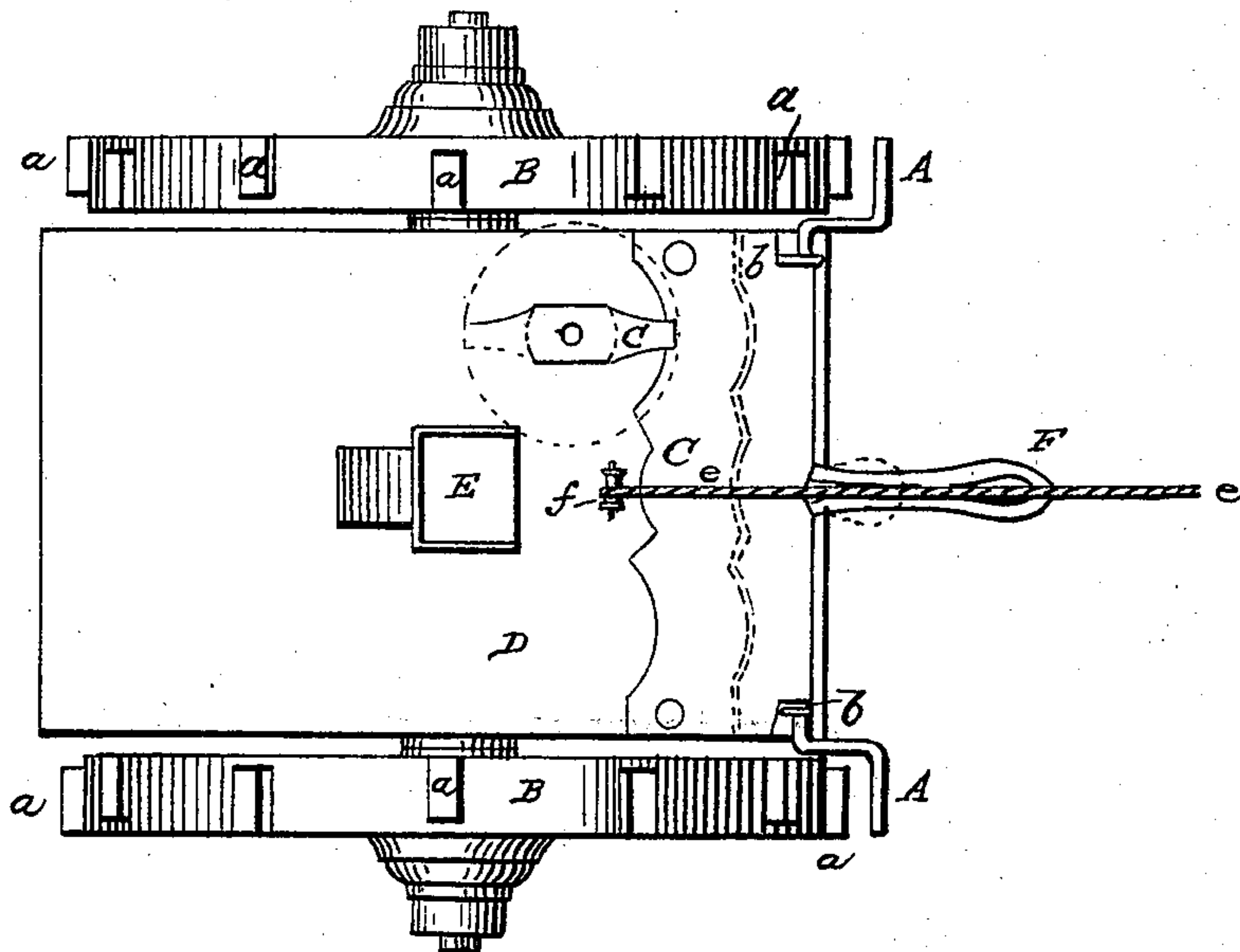
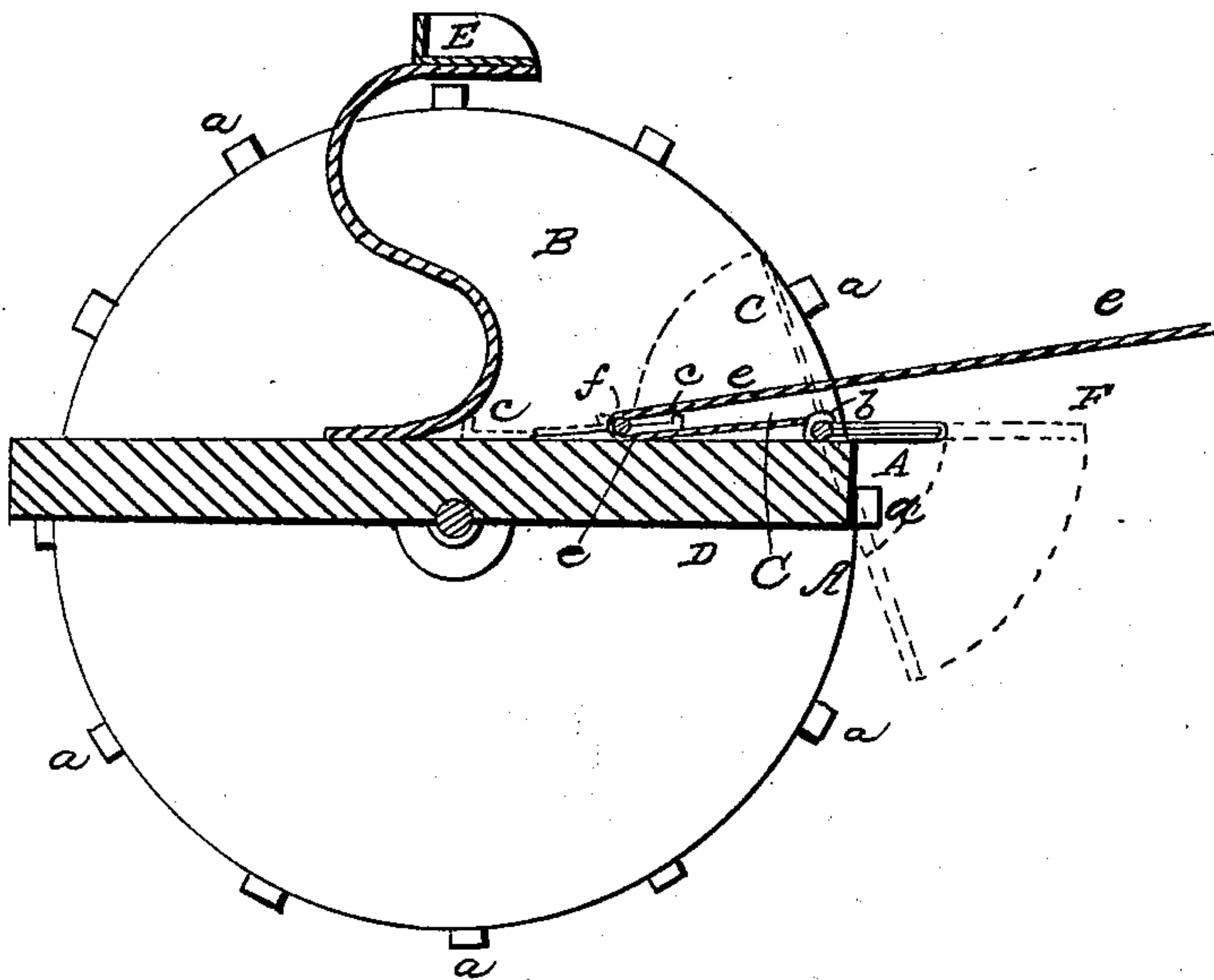


FIG. 2.



WITNESSES:

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INVENTOR.

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UNITED STATES PATENT OFFICE.

B. G. FITZHUGH, OF BALTIMORE, MARYLAND, ASSIGNOR TO HIMSELF, JOHN M. GRIFFITH, AND JAMES BREWSTER, OF SAME PLACE.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 54,466, dated May 1, 1866.

To all whom it may concern:

Be it known that I, B. G. FITZHUGH, of the city of Baltimore and State of Maryland, have invented a new and useful Improvement in Harvesting-Machines, it being a locking and stopping device for arresting the progress of the machine should the driver or conductor be thrown from or leave his seat or stand, and thus avoid the many accidents happening by the cutters advancing on the person thus from any cause thrown or standing in the line of the cutters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a top plan of so much of a harvesting-machine as will illustrate the invention, and Fig. 2 represents a longitudinal vertical section through the same.

Similar letters of reference where they occur in the separate figures denote like parts of the machine in both of the drawings.

Many serious accidents happen in the use of harvesting-machines, caused by the driver, conductor, or operator being thrown from his seat, stand, or position on the machine, or team by which the machine is drawn, by any sudden jar or concussion or by the unruliness of the team; and the object and purpose of my invention are to so contrive as that when the driver, conductor, or operator shall be absent from his seat, stand, or position on the machine or on the team, whether he be thrown therefrom or voluntarily leaves his seat, stand, or position to fix or arrange any part of the machine, the machine shall be locked or stopped, and thus prevent the team from drawing the machine onto him and injuring him, as so frequently happens; and my invention consists in a locking or stopping mechanism that, so long as the driver, conductor, or operator is on or in his proper seat, position, or stand, said mechanism shall be out of action; but when from any cause, accidental or intentional, the driver or other person shall leave his seat, stand, or position, the mechanism shall instantly lock the wheels of the machine, and thus prevent the team from drawing the machine onto the person in its path, or indeed moving it at all, thus avoiding a casualty that

frequently happens to those using harvesting-machines or employed about them.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

The driving-wheels of harvesting-machines as at present constructed have generally, if not universally, lugs *a* cast upon them, to cause them to take the necessary hold upon the ground that will prevent them from slipping. Availing myself of these necessary appendages to all harvesting-machines, and finding them already at hand and suitable for the purpose, I propose to apply my stop or lock to them as follows: Bent arms *A*, or otherwise, are arranged so as to hang in close proximity to the perimeters of the driving or supporting wheels *B* when held out of action; but whenever the device by which they are thus held out of action is released or uncontrolled by the driver, conductor, or operator of the machine, the lock or stop is by its own action thrown against the wheels, and, catching and holding the lugs that come against it, instantly stops the machine, as the wheels cannot turn, and the team cannot start a machine with its wheels thus locked.

In most cases the driver, conductor, or operator rides upon the machine. When this is the case I make a foot-board, *C*, which is connected to the arms or bar *A*, (said arms or bar being pivoted, as at *b*, so as to have a rocking motion on the platform or frame *D*,) and in convenient position for the occupant of the seat *E* to place his foot or feet upon. The weight of the feet of the rider, when on the foot-board *C*, holds the locking-arms *A* away from the faces of the driving-wheels; but the moment the occupant of the seat, from any cause, removes his feet from the board or lever *C* the counterpoise or overpoise *F* rocks or turns the bar, and brings the arms *A* against the faces of the wheels, where they catch the first of the lugs *a* that come against them and immediately stop the wheels and the machine, so that, if the occupant of the seat be thrown from it, as often happens, the lock is instantaneously applied and stops the machine; or if the driver, conductor, or operator should leave his seat, stand, or position to clear, ar-

range, or fix the cutters, which required him to stand in front of them, the team could not start the machine or draw it toward or on him, and thus the accidents that so often happen under these circumstances could not take place.

It may sometimes happen, as for instance in hitching up the team or in putting away the machine, that it is desirable that the wheels and machine should be capable of moving though the operator should not be in his seat, stand, or position. For this purpose a button or catch, *c*, of any kind may be used to hold the stop or lock out of action; but when the machine is in regular action this button or catch is thrown out, and the device becomes self-acting, and is only prevented from constant action by the driver or conductor holding it out of action; or, instead of holding the lock or stop *A* out of action by the foot or feet of the driver or conductor, the mechanism may be connected with the seat *E* itself, so that when he is in the seat the lock or stop shall be held out of action, and his absence from the seat from any cause, accidental or voluntary, allow it to go into action instantly and lock and stop the wheels and the machine.

Frequently in machines provided with a seat for the driver on the main frame the driver will, from choice or for the sake of change, mount the team and ride. In such case a cord or strap, *e*, fastened to the foot board or lever *C*, and first passing under and over a pulley or otherwise, *f*, may extend to the saddle, stirrup, or any other part of the harness, where the weight or position of the rider would hold it, and through it the locking or holding arms *A*, out of action; but when from any cause the rider should leave his seat or position the arms would be immediately thrown into action and lock the wheels and the machine, thus accomplishing the same result. Other devices may be applied by which this presence in his seat or stand or absence from it on the part of the driver or conductor would hold out or allow to go into action this locking and holding mechanism; and it may be applied to machines in which the lugs are not found on the drive-wheels—as, for instance, in wheels composed of hubs, spokes, and rims, the locking-arms, when the driver or conductor is thrown off or leaves his

seat or stand, may be thrown in between the spokes and thus lock the wheels; or holes or recesses may be made in or projections on the sides of the wheels, so that when the locking-arms are shot out, by a spring or by a weight, they will catch into or against such recesses or projections and thus lock and hold the wheels and machines.

The gist of the invention consists in causing the presence of the driver or conductor, when in his seat, position, or stand, to hold the locking mechanism out of action, while his absence therefrom, whether by accident or intention, shall allow said mechanism to go into action and stop the machine.

Simply stopping the gearing and the motion of the cutters will not serve the desired end, for if the team can move on the machine will be drawn upon or over the person in its path, and the pointed guards and exposed knife will mutilate or cut his person and frequently cause death. The only effectual security is in stopping the machine, so that the team cannot move it.

When the driver or conductor voluntarily leaves his seat, stand, or position he may, by moving a lever, catch, or any other suitable device, throw the lock or stop positively into action, though as a general thing the device, when properly constructed, will be self-acting; but an additional positively-acting device will render the security doubly secure, and may be readily applied, so that moving a lever or drawing a cord or turning a button will throw the stop into certain action.

Having thus fully described my invention and shown how it may be practically applied, what I claim, and desire to secure by Letters Patent, is—

So combining locking-arms with the wheels of a harvesting-machine and with appliances, substantially such as herein described, as that while the driver or conductor is in his seat, stand, or position the locking-arms shall be held out of action, and when he is thrown from or leaves his seat, stand, or position said locking-arms shall be immediately thrown into action, as and for the purpose herein described.

B. G. FITZHUGH.

Witnesses:

WM. L. STORK,
S. TEMPLETON.