

(No Model.)

J. JONES.
SCAFFOLD.

No. 524,552.

Patented Aug. 14, 1894.

Fig. 1.

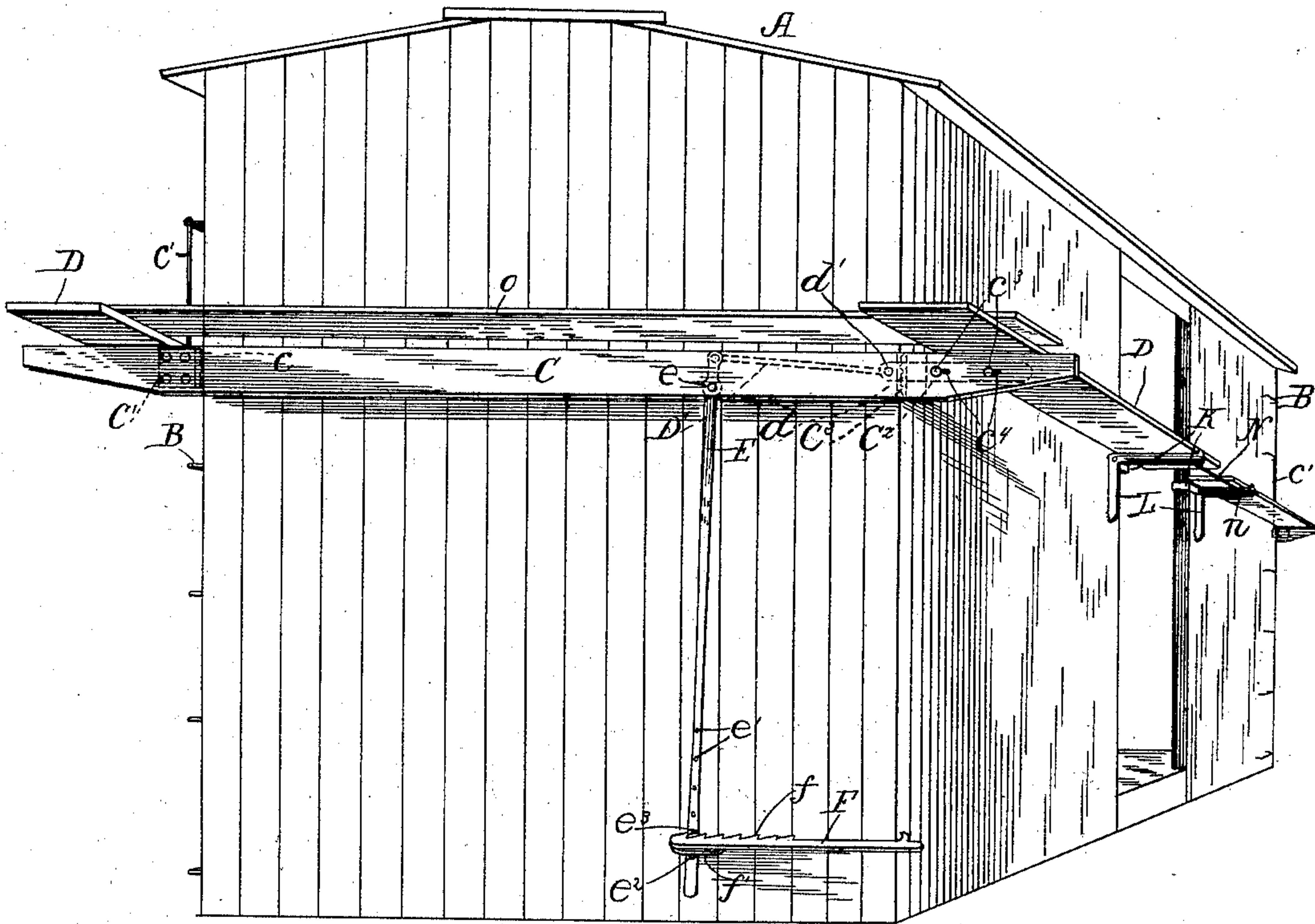


Fig. 2.

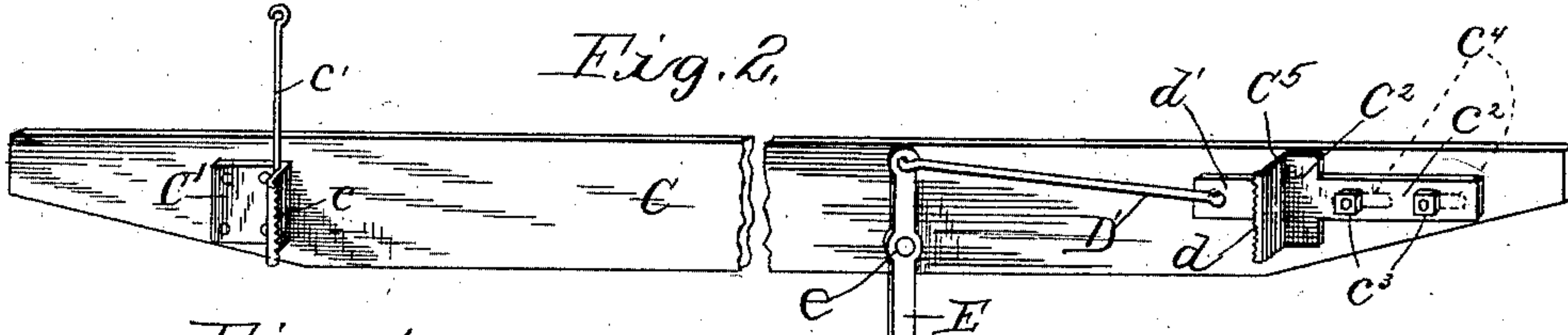


Fig. 4.

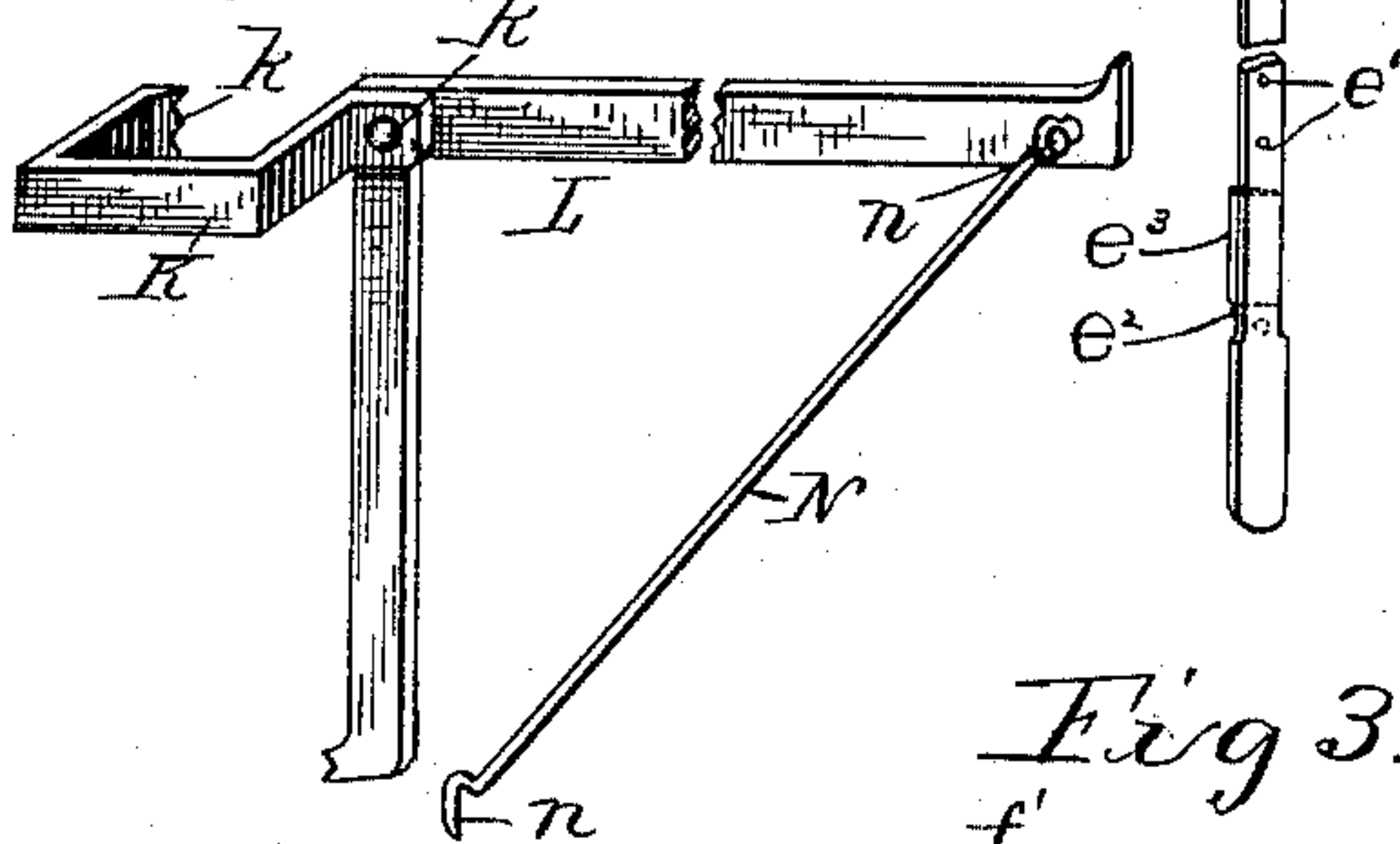
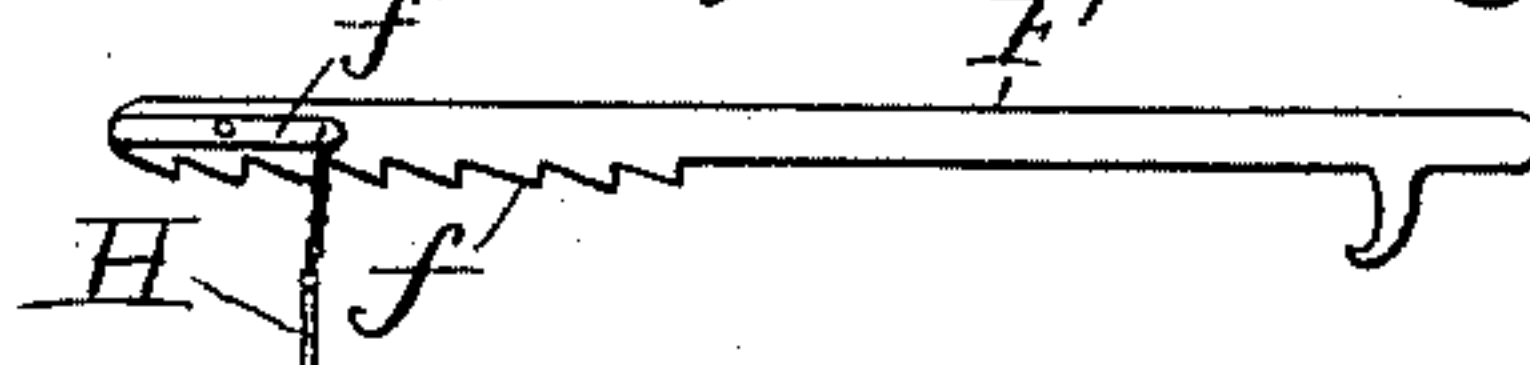


Fig. 3.



WITNESSES:

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SCAFFOLD.

SPECIFICATION forming part of Letters Patent No. 524,552, dated August 14, 1894.

Application filed December 12, 1893. Serial No. 493,464. (No model.)

To all whom it may concern:

Be it known that I, JOHN JONES, a citizen of the United States, residing at Centreville, in the county of Appanoose and State of Iowa, have invented certain new and useful Improvements in Scaffolds; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a new and useful improvement in scaffolds, and it consists in the construction and arrangement of parts hereinafter described and definitely pointed out in the claims.

The aim and purpose of the invention is the provision of an improved scaffold adapted more especially to use in connection with vehicles, such as freight cars, and which can be quickly adjusted to the car or structure without the employment of ground supports. These objects are attained by the construction illustrated in the accompanying drawings wherein like letters of reference indicate corresponding parts in the several views, and in which—

Figure 1 is a perspective view of a car showing the improvement applied thereto. Fig. 2 is a detail view of the end bracket. Fig. 3 is a detail view of the movable clamp for the end bracket, and Fig. 4 is a detail view of the side brackets.

In building, repairing and painting freight cars it is essential to have a scaffold therefor which will be supported and carried by the car itself so that the latter may be moved at will on the track upon which it stands. It is also essential that a scaffold should be provided which can be quickly applied, and adjusted to various heights. My invention is therefore intended to answer such requirements.

In the drawings A represents a freight car, having the usual hand holds B which serve as a ladder for reaching the roof of the car.

C is the end bracket consisting of a strip of wood or other material, extending entirely across the end of the car, its end projecting beyond the sides thereof for the purpose of receiving the side boards D. This bracket has secured on its inner face a clamping plate C' extending out at right angles and having

an inwardly extending serrated edge c. On the flanged portion of this clamping plate C' is pivotally secured a hook c' adapted to fit over the end bar of a hand hold on the car. On the opposite end of the bracket C is secured a longitudinally adjustable clamping plate C² consisting of a plate c² which is slidably secured to the inner face of the bracket by the bolts c³ which pass through elongated slots in the end of the bracket as at c⁴. The plate C² has a rigid clamping jaw C⁵ extending out at right angles thereto from a point adjacent the inner end of the plate. This jaw has a series of inwardly extending teeth d. On the inner end of the plate C² is the perforated extension d' to which a link D' is pivotally connected, the opposite ends of the link being pivotally secured to the short arm of the setting lever E, which latter is fulcrumed on a suitable bolt e secured to the bracket, the lever passing up between the bracket and car.

The lever E has a series of perforations e' therein, and extends downward to a point at or near the base of the car. By this construction it will be seen that as the lower or long arm of the lever is moved outwardly the short arm is moved inwardly carrying the teeth on the clamping plate C² into the side of the car as well as the teeth on the opposite plate. To secure the lever in its adjusted position I form a lateral lug e² on its lower or handle end and a sharp rear edge e³ above the lug.

F is a toothed bar having a hooked outer end and a series of inclined teeth f on its edge with which the sharp edges of the lever engage and is held in place when the clamps are set. The lug e² serving to prevent the bar F from being knocked down or disengaged by material striking the same. The inner end of this bar F has an arm f' extending out parallel with the bar and formed with a central perforation registering with the perforation in the bar.

H is a pin adapted to pass through the perforation in the bar and arm and through the perforations in the lever when the latter is adjusted between the arm and bar. By this means the lever and bar are securely united, so that when the bracket is dropped to a point adjacent the base of the car the hook of the bar can be engaged with one of the

central beams or timbers near the center of the car, and the lever held in its position by the bar. The series of apertures in the lever serving the purpose of the teeth in the bar when the former is forced out.

The end bracket being of the above described construction, it is necessary to provide means at the center of the car which are adjustable vertically relative to the adjustment of the end bracket and to support the inner end of the side board. To this end I form the brackets J which consist of a U-shaped clamp K adapted to embrace the door post it having on its inner end a tooth *k* and on its opposite end an outwardly extending lug *k'* having an eye therein. To the lug *k'* is pivotally secured the angle bracket L which has the pivotal connection with the lug at its angle, so that its horizontal end may be thrown up into a vertical position when so desired. The vertical arm L' of the bracket L has a series of inwardly extending teeth at its lower end. When pressure is brought to bear upon the horizontal arm of bracket L, the teeth on the inner end of the U-shaped piece will be embedded in the wood of the door post while the teeth on the lower end of the vertical arm of the angle bracket will be embedded in the side of the car, and by this means firmly hold the bracket in place. The boards at the sides of the car are extended beyond the ends and are of a length usually to reach one of the side brackets.

When the car is surrounded by my scaffold and side boards of the usual length are used I find it necessary to unite the brackets on the opposite door posts. I therefore provide eyes in the outer ends of the horizontal arms through which the hooked ends *n* of the connecting bar N pass, thereby uniting the outer ends of the bracket.

O are the end boards extending across the end of the car and resting on the projecting ends of the side boards.

By the above described construction the adjustment, application and use of my scaffold will be apparent.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a scaffold for cars, the combination of an end bracket adapted to extend across the end of a car, of a fixed clamping plate on one end of the bracket, a hook connected to said plate, a longitudinally adjustable clamping

plate on the opposite end of the bracket, a lever carried by the bracket having a pivotal connection with the adjustable plate, and an adjustable bar having a hooked end adapted to engage the car, and means for forming an adjustable connection between the bar and lever, substantially as described.

2. In a scaffold for cars, the combination with an end bracket, a fixed clamp at one end thereof, an adjustable clamp on the opposite end thereof, a lever fulcrumed on the bracket, a link connection between the short arm of the lever and the adjustable clamp, and an adjustable connection at the long arm of the lever for securing the same when in its adjusted position, substantially as described.

3. In a scaffold for cars, the combination with a car, and the hand holds thereon, of an adjustable end bracket, a clamping plate fixed on one end thereof, a hook on the bracket engaging a hand hold, an adjustable clamp on the opposite end of the bracket consisting of a plate having a toothed extension adapted to engage the side of the car, a sliding connection between the plate and bracket, a lever pivoted to the bracket, a link connection between the short arm of the lever and the sliding plate, a bar having a hook on its outer end, and means for adjustably connecting the long arm of the lever with the bar, substantially as described.

4. In a scaffold for cars, the combination with an adjustable end bracket, of a side bracket consisting of a U-shaped clamp having an outwardly extending lug, an angle bracket pivotally secured at its angle to the lug and having a series of teeth formed on its lower end, substantially as described.

5. In a scaffold for cars, the combination with the adjustable end brackets, of adjustable side brackets consisting of U-shaped clamps having teeth on their inner ends and lugs on their outer ends, angle brackets pivotally secured to the lugs and having teeth on their lower ends, a connection between the outer ends of the angle brackets and the boards between the side and end brackets, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN JONES.

Witnesses:

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ARTHUR J. GROVER.