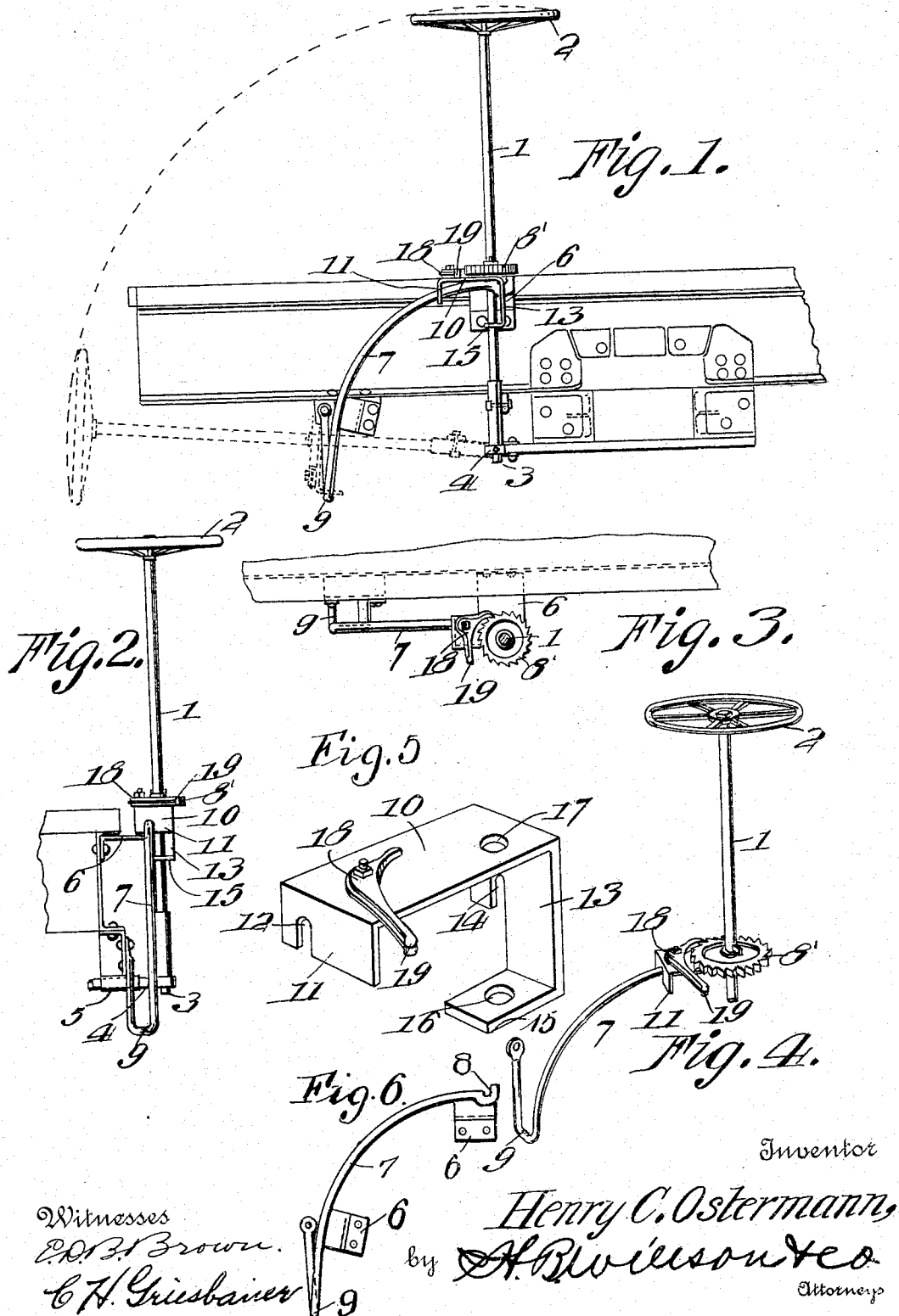


H. C. OSTERMANN.
BRAKE MAST.
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UNITED STATES PATENT OFFICE.

HENRY C. OSTERMANN, OF CHICAGO, ILLINOIS.

BRAKE-MAST.

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To all whom it may concern:

Be it known that I, HENRY C. OSTERMANN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Brake-Masts; and I do 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 improvements in brake masts.

The object of the invention is to provide an improved construction of brake mast, having means whereby the same may be turned down from a vertical to a horizontal position and operated in either position to apply the brakes.

With this and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1, is an end view of a portion of a flat car, showing the application of the invention, and illustrating the mast in full lines in an upright position, and in dotted lines in a turned down position. Fig. 2, is a side view of the same. Fig. 3, is a horizontal detail sectional view. Fig. 4, is a detail perspective view of the mast and pawl plate guide arm; and, Fig. 5, is a similar view of the pawl plate. Fig. 6 is a detail front elevation of the guide arm.

Referring more particularly to the drawings, 1, denotes the brake mast, which is provided on its upper end with the usual hand wheel 2, and is provided on its lower end with a reduced bearing extension 3, which is revolubly mounted in a bearing aperture in the outer end of a brake arm 4, which in turn is revolubly mounted in a bearing sleeve or bracket 5, secured to the front end of the car in any suitable manner. Also secured to the front end of the car by brackets 6, or other suitable fastening devices, is a curved guide arm or rod 7, in the upper end of which is formed a locking notch 8. The lower end of the bar 7, is bent upwardly into the form of a loop 9, which provides a support for the mast when

in a turned down position as shown in dotted lines in Fig. 1.

Secured to the mast 1, is a pawl supporting plate 10, said plate having one end bent downwardly at right angles as shown at 11, said rightangularly bent end being provided with a notch 12, adapted to slidably engage the guide rod 7. The opposite end of the plate is bent down at right-angles as shown at 13, and said end is provided with a rod engaging notch 14, and is extended downwardly adjacent to one side of the notch, and said downwardly extending portion is bent inwardly at its lower end to form a mast engaging plate 15. The plate 15, is provided with a mast receiving hole 16, which is in alinement with a similar hole 17, formed in the plate 10, immediately above or in line with the hole 16. By means of the holes 16 and 17, the plate 10, is loosely engaged with the mast 1. On the plate 10, at the opposite end of the same from the hole 17, is pivotally mounted a pawl 18, which is provided with an operating handle 19, and is adapted to be turned into engagement with a ratchet wheel 8', which is keyed or otherwise secured to the mast 1, immediately above the plate 10, and upper end of the guide rod 7.

By pivotally mounting the lower end of the mast 1, as herein shown and described, the latter may be readily turned down from an upright to a substantially horizontal position and by securing the pawl engaging plate to the mast, the latter will be moved with the mast and may be engaged with the ratchet wheel on the mast when in any position. By providing the guide rod engaging slots in the ends of the pawl plate 10, said plate and mast are held in position and guided in their movements. When the mast is in a turned down position, one end of the plate 10, will engage the loop in the lower end of the guide rod, thereby supporting the mast in a lowered position. When the mast is swung to an upright position, the notch 14, in the end 13, of the plate 10, will drop into engagement with the notch 8, in the upper end of the rod 7, thereby securely holding the mast in an upright position. When the mast is lowered, it is simply necessary to raise the parts a slight distance to disengage the notched end of the plate 10, from the notch or recess 8.

A brake mast constructed as herein shown and described is particularly adapted for use in connection with flat cars and when arranged on cars in the manner described, may be swung down to a substantially horizontal position to permit the loads on the cars projecting out beyond the ends of the same without interfering with the operation of the mast.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim as new is:

1. In a device of the class described a mast pivotally mounted at its lower end, a guide rod having a loop shaped end to support the mast in its lowered position, a plate connected to said mast and slidably engaged with said rod and cooperating elements carried by said plate and mast respectively and adapted to be engaged when the mast is in upright or lowered position.

2. In a device of the character described, a mast, a supporting bracket to pivotally support the lower end of said mast, a guide rod having a loop shaped lower end and having in its upper end a retaining notch, a pawl plate slidably engaged with said rod and connected to said brake mast, a ratchet wheel arranged on said mast, and a pawl pivotally mounted on said pawl plate and

adapted to be engaged with said ratchet wheel when the mast is in an upright or turned down position.

3. A device of the character described, comprising a mast pivotally mounted at its lower end to be swung to an upright or turned down position, a curved guide rod having a loop shaped lower end adapted to form a support and having at its upper end a notch, a pawl plate on said mast, said plate having a mast engaging aperture, right-angularly bent ends formed on said plate, said ends having guide rods engaging notches formed therein, an extension formed on one of said ends, said extension having a right-angular inwardly projecting apertured mast receiving plate, a ratchet wheel on said mast, a pawl pivotally secured on said pawl plate and adapted to be engaged with said ratchet wheel when the mast is in an upright or turned down position.

4. In a device of the class described a mast pivotally mounted at its lower end, a guide member having means for supporting said mast in lowered position, a plate loosely mounted on said mast, cooperating elements carried by said plate and guide member respectively for locking the mast in upright position and a pawl and ratchet wheel mounted respectively on said plate and mast and adapted for engagement when said mast is in either lowered or upright position.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HENRY C. OSTERMANN.

Witnesses:

CLARENCE H. POLLEY,
THOMAS W. FLYNN.