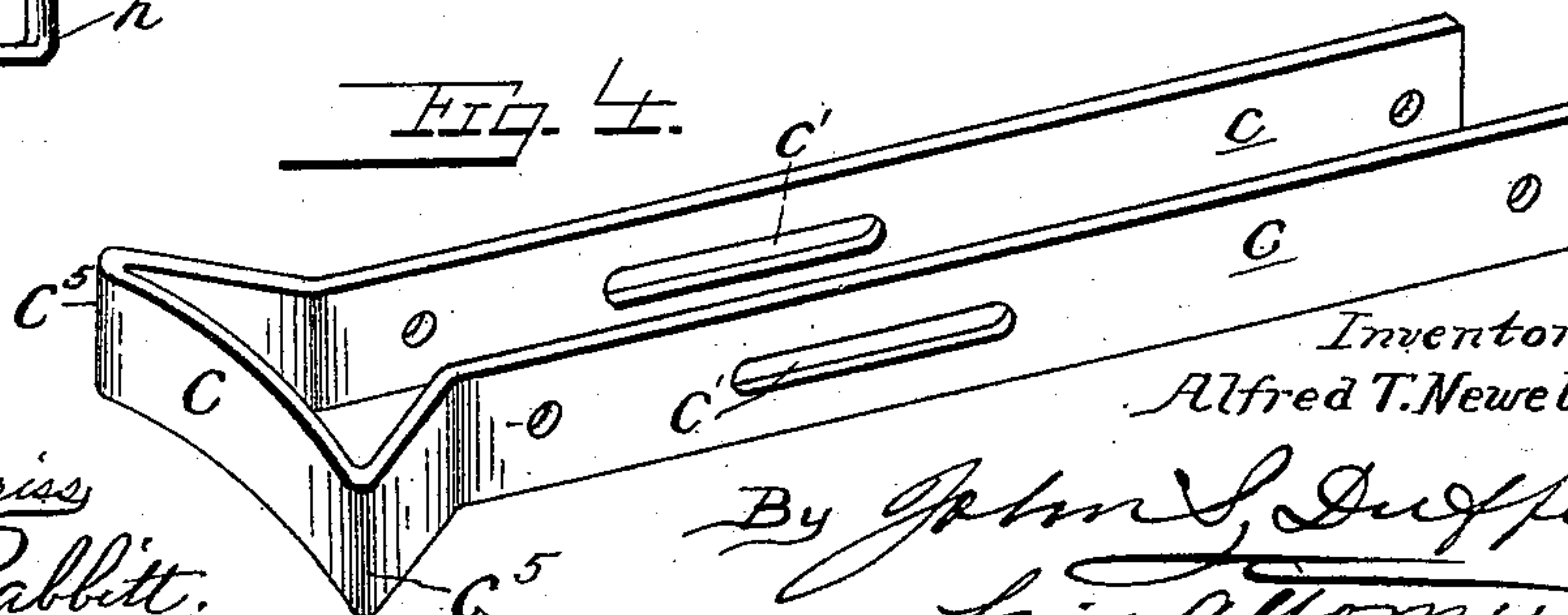
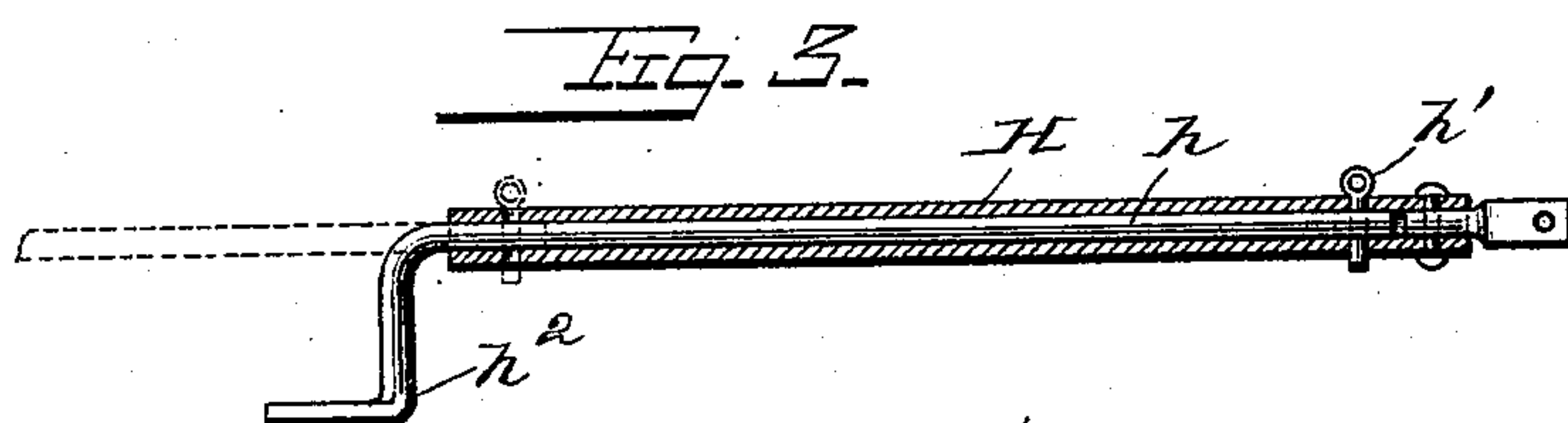
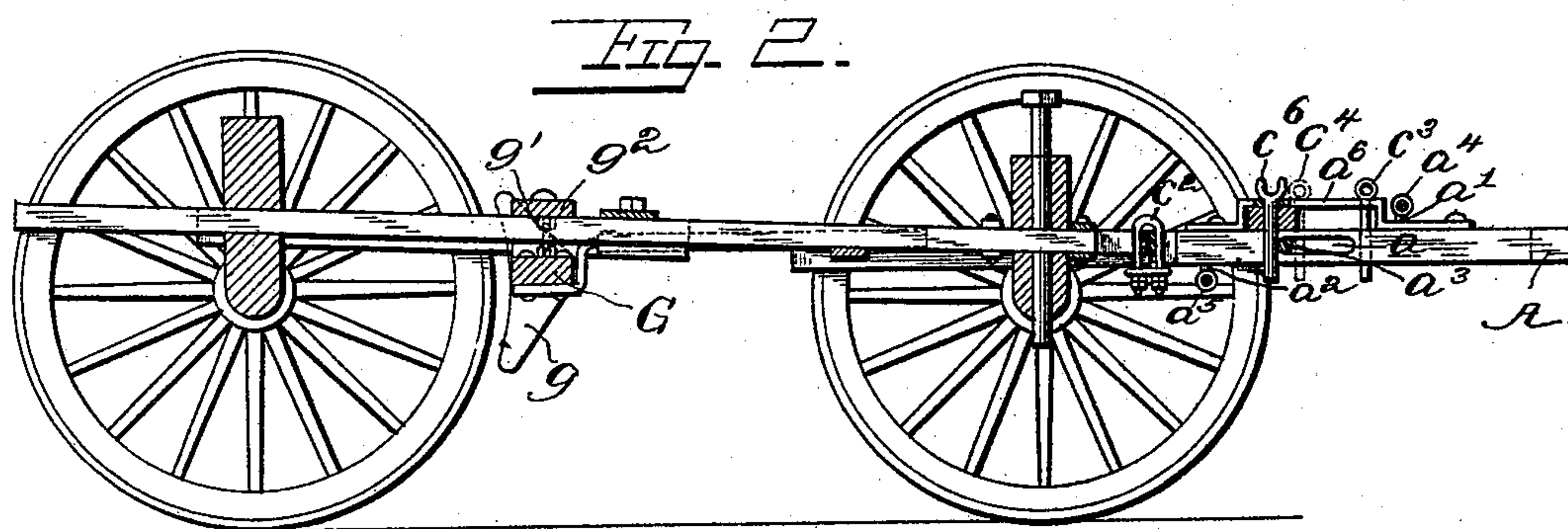
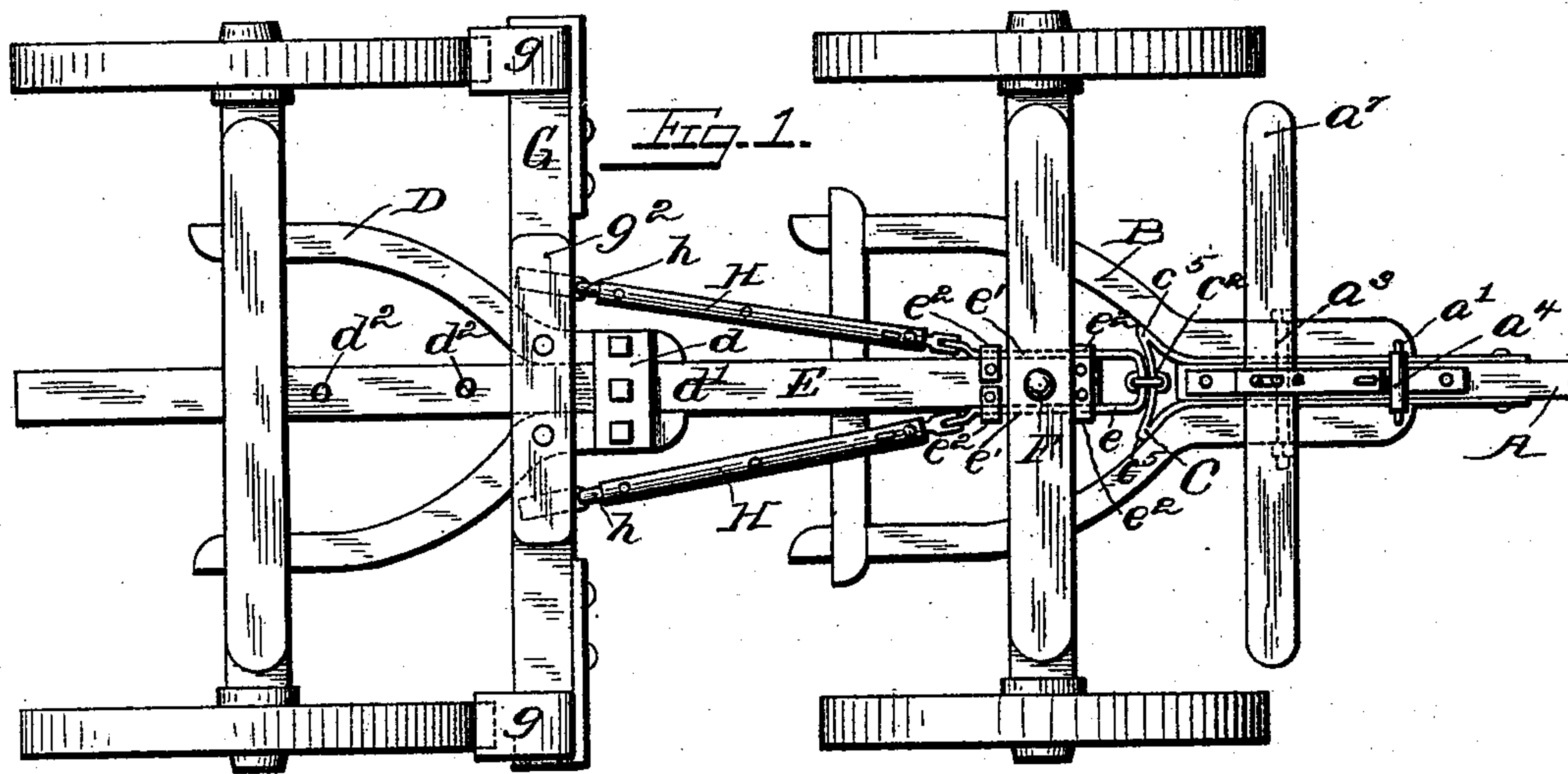


(No Model.)

A. T. NEWELL.
WAGON BRAKE.

No. 494,645.

Patented Apr. 4, 1893.



Attest
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UNITED STATES PATENT OFFICE.

ALFRED T. NEWELL, OF ANDERSON, SOUTH CAROLINA.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 494,645, dated April 4, 1893.

Application filed December 31, 1892. Serial No. 456,939. (No model.)

To all whom it may concern:

Be it known that I, ALFRED T. NEWELL, a citizen of the United States, residing at Anderson, in the county of Anderson and State of South Carolina, have invented certain new and useful Improvements in Wagon-Brakes; 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention has relation to "wagon brakes;" and consists in the novel construction and arrangement of its parts, hereinafter set out in this specification and the claims thereto annexed.

In the accompanying drawings: Figure 1, is a top plan view of my invention. Fig. 2, is a longitudinal sectional view of my invention. Fig. 3, is a detail view showing the cylinder and extension rod. Fig. 4, is a detail view showing the abutment and tongue brace.

The object of my invention is to insure a safe, light and economical wagon-brake and it is described as follows:

A, represents the wagon-tongue, provided near its rear end, with a longitudinal horizontal slot a , so that said tongue may play back and forth between the nose of the hounds B; the rear end of said tongue is provided with an abutment C, the rear part of which is the segment of a circle; said abutment C, is provided with extensions c , which segments are secured one on each side of the tongue to strengthen it; said extensions are provided with proper bolt-holes, that it may be secured to the said tongue; and also with longitudinal slots c' , which are concentric with the slot a , in the tongue. The front ends of said hounds are held together by the staple bolts a' , a^2 , (Fig. 2) and the nut bolt a^3 , which passes through the hounds, the slot a , in the tongue and the slot c' , in the extensions c ; said staple bolts are each provided with rollers a^4 , a^5 . The object of these rollers is to allow the tongue to move back and forth between said hounds, and not be hindered by friction. The rear hounds D, have their nose parts secured together by a plate d , secured by proper

bolts. The coupling tongue E, is made so that it will slip back and forth between said hounds and the axle and bolster of the rear running gear, so that the gear of the wagon may be lengthened out for hauling saw logs and other purposes, in which case the coupling pin d' , will be put through one of the rear holes d^2 . The king bolt F, passes down through the bolster of the front gearing, the forward end of the coupling pole and the axle. Thus the front gearing may be turned to the right or left.

The brake bar G, is provided with shoes g , properly secured to each end of the same, in such position, that they may be readily brought in contact with the peripheries of the rear wheels of the running gear. The brake G, works under the hounds D, and is swung by hooks and links g' , (Fig. 2) to a support-bar g^2 , which rests on and is secured to the top side of the hounds D, thus allowing said brake-bar to be moved forward and back.

The front end of the coupling tongue E, has working on the front of it a U-shaped bar e , with extensions e' , which run back on each side of said coupling tongue and are held in place by keepers e^2 , which are firmly bolted to the front end of said coupling tongue, but at the same time leaving sufficient room to allow said extensions to move forward and back. To the rear ends of these extensions are hinged hollow cylinders H; in these hollow cylinders work extension rods h , which are held in place by pins h' , which work through perforations in said cylinders and said extension rods; the rear ends of said extension rods are bent down and then back forming elbows h^2 , and they are (said rear ends) secured to the lower face of said brake-beam G. When the running gear is lengthened out, the extension rods h , are also lengthened out accordingly. The abutment C, and the U-shaped bar are held nearly in contact by a U-shaped cuff c^2 . This U-shaped cuff c^2 , plays to the right or left hand corner of the U-shaped bar e , and the abutment C, will also slide through it, and thus the wagon tongue may be turned either to the right or left, all the time being in position to push the U-shaped bar e , back, when backward pressure is brought against the tongue. When the draft is on, the rear wall of the

slot a , is against the pin a^3 , but when the draft is off, and team pulls against the front end of the tongue, the tongue moves back, and the abutment C, comes in contact with the U-shaped bar e , and pushes it back, and the ends of said bar push back the cylinders H, which push back the extension rods h , and they push back the brake bar G, and they push back the brake shoes g , against the peripheries of the rear wheels and thus the wagon is locked. When the bottom of the incline is reached, the tongue is pulled forward by means of which the brake shoes g , are pulled forward and the brake is off.

When I wish to secure the tongue in place so that I may back the wagon without putting on the brake, I withdraw the pin c^3 , and put it in at the point represented by the dotted pin c^4 , just in front of the bolt a^3 .

On top of the tongue A, and over the slot a , is secured a U-shaped bar a^6 ; under which and on top of the tongue works the double-tree a^7 . Said bar is provided with perforations for the bolts c^3 , c^6 , to work in. When the pin is placed at the point indicated by the dotted pin c^4 , the tongue is held so that it cannot move backward or forward. The rear part of the abutment C, is widened out so that no matter which way the front gearing may be turned, the inner face of the segment will be nearly in contact with the front part of the U-shaped bar e , and no matter whether the tongue may be turned to the right or left, when the team pulls back on the tongue said abutment will press against the forward part of said bar and put on the brake.

My invention, while light, is very substantial and strong, all the pressure being on the ends of the rods and bars, that is, longitudinally. When the wagon and brake are coupled up the rods h , are on the inside of the piping H, and consequently out of the way also making the brake more durable. Another point to be mentioned is that the extensions c^5 , of the abutment C, rest against the inner face of the front hounds when the draft is on, and therefore distribute the pressure and render the hounds less liable to be broken when turning the wagon.

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

1. In combination with the front running gear of a wagon, the tongue A, provided with the longitudinal horizontal slot a ; perforated U-shaped bar a^6 , secured to the upper face of said tongue over the slot a ; abutment C, secured to the rear end of said tongue by means of its slotted extensions c ; bolt a^3 , passing through the nose of the hounds B, the slot a , and slots c' ; plate d , secured to the nose of the rear hounds D, holding them sufficiently wide apart to allow the coupling tongue E, to move back and forth; U-shaped bar e , secured to the front end of said coupling tongue E, by means of the keepers e^2 ; cuff c^2 , holding

the front end of the U-shaped bar e , and the abutment C, nearly in contact; perforated cylinders H, hinged to the rear ends of the extensions e' , of the bar e ; perforated rods h , working in said perforated cylinders H; pins h' , adapted to work in the perforations in the cylinders H, and rods h ; brake-bar G, provided with shoes g , secured to the rear ends of said rods h ; beam g^2 , secured to the upper face of rear hounds D, and links and staples g' , swinging said lock-bar under the hounds, substantially as shown and described and for the purposes set forth.

2. In combination with the running gear of a wagon, the staple rod a' , secured to the front end and upper face of the nose of the front hounds, carrying the roller a^4 ; the staplerod a^2 , secured to the rear end and lower face of said nose carrying the roller a^5 , the tongue A, provided with the longitudinal slot a , perforated U-shaped bar a^6 , secured to the upper face of said tongue over the slot a ; abutment C, secured to the rear end of said tongue; bolt a^3 , passing through the nose of the hounds B, the slot a , and slots c' ; coupling tongue E, adapted to move back and forth through the rear running gear; U-shaped bar e , secured to the front end of said coupling tongue, so that it may move back and forth; cuff c^2 , holding the front end of the U-shaped bar e , and the abutment C, nearly in contact; cylinders H, hinged to the rear ends of the bar e ; rods h , working in said cylinders, provided with means of adjustment; brake-bar G, secured to the rear ends of said rods h , beam g^2 , secured to the upper face of the rear hounds; and links and staples g , swinging said lock-bar under the rear hounds, substantially as shown and described and for the purposes set forth.

3. In combination with the running gear of a wagon, substantially as shown and described, the tongue A, adapted to move back and forth between the front ends of the front hounds; abutment C, secured to the rear end of said tongue; U-shaped bar e , adapted to move back and forth between the axle and bolster of the front running gear, and having its front end held nearly in contact with the abutment C; said U-shaped bar e , having hinged to its free ends extensions, to the rear end of which is secured the movable lock-bar G, substantially as shown and described and for the purposes set forth.

4. In a braking device, substantially as shown and described, the abutment C, having the perforated extensions c , slots c' , and extensions c^5 , to work against the bends of and the inner faces of the hounds B, substantially as shown and described and for the purposes set forth.

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

ALFRED T. NEWELL.

Witnesses:

ANNIE A. LANSDALE,
ROSE E. RABBITT.