

(No Model.)

2 Sheets—Sheet 1.

A. T. NEWELL.
WAGON BRAKE.

No. 511,861.

Patented Jan. 2, 1894.

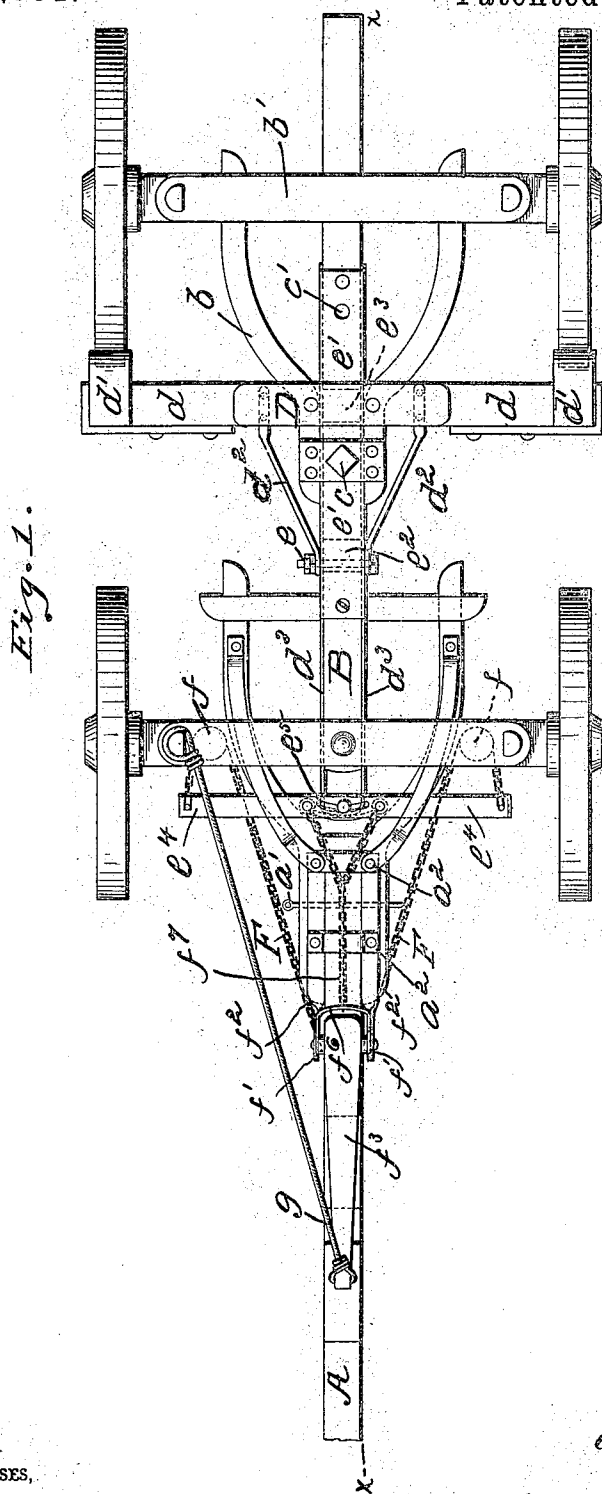


Fig. 1.

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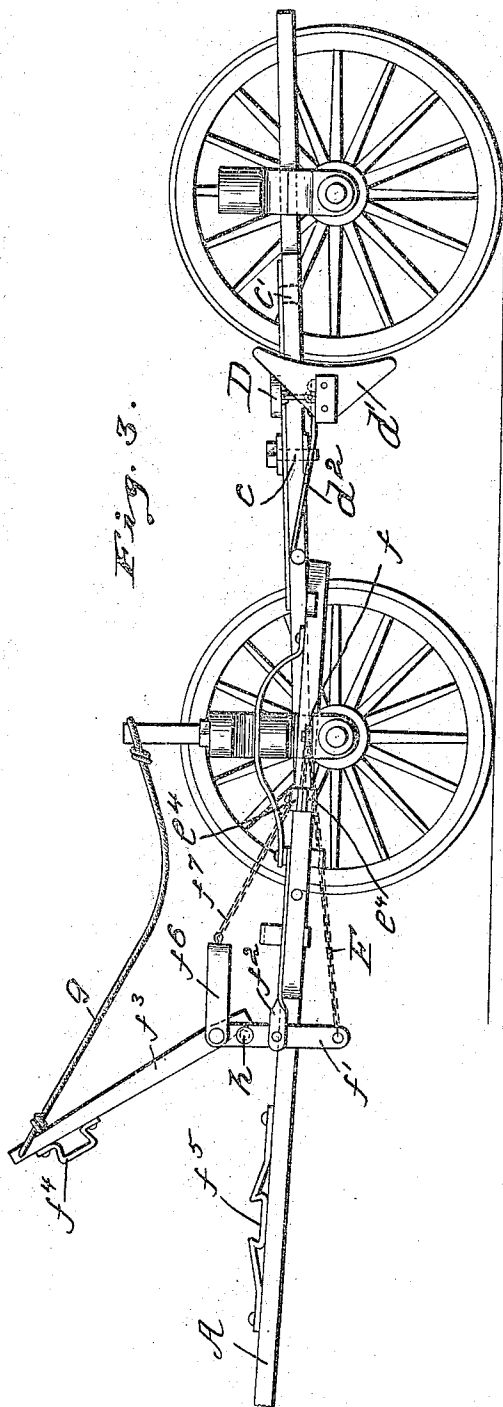
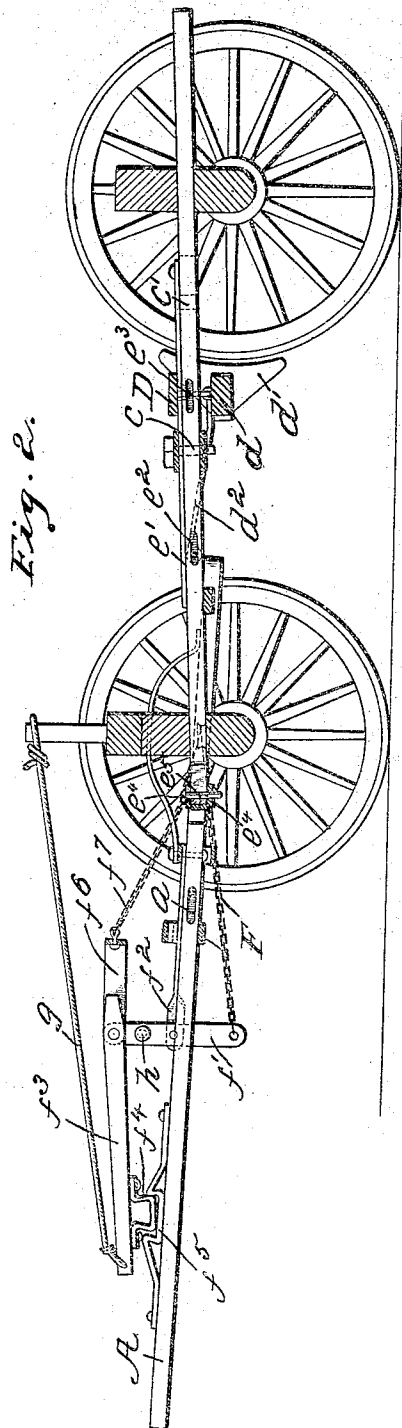
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WITNESSES,
Walter Farnsworth
Rose E. Rabbitt.

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UNITED STATES PATENT OFFICE.

ALFRED TURENNE NEWELL, OF ANDERSON, SOUTH CAROLINA.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 511,861, dated January 2, 1894.

Application filed June 22, 1893. Serial No. 478,465. (No model.)

To all whom it may concern:

Be it known that I, ALFRED TURENNE 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 Fig. 1 cut on the line *x, x*. Fig. 3 is a side elevation of my invention.

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, having in its rear end a slot *a*, (Fig. 2) that it may slide back and forth between the hounds, wherein it is secured by a bolt *a'*, (Fig. 1) and upper and lower cross straps *a''*, which hold the front ends of the hounds in place.

B, is the coupling pole which is bolted between the lower bolster and axle of the front running gear and works between the hounds *b*, and the axle and bolster *b'*, of the hind running gear and is provided with perforations *c*, and *c'*, for lengthening and shortening the gear. On the upper face of the nose of the hounds *b*, is secured a cross-piece D. Underneath this cross-piece is swung a cross-beam *d*, to each end of which is secured a shoe *d'*, in position to come in contact with the periphery of the hind wheels. To said cross-beam *d*, are secured the rear ends of braces *d''*, the front ends of which are bolted to the outer face of a U-shaped bar *d'''*. The curved part of said U-shaped bar extends some little distance beyond the front end of the coupling pole B, while its free ends fit closely against

the edges, one on each side of said coupling pole B, and extend back some little distance beyond the perforation *c'*. Said free ends of said U-shaped bar are held in easy contact with the edges of the coupling pole by means of the bolt and nut *e*, front ends of the hounds *b*, and the plate *e'*, which is secured to the upper face of said coupling pole. In the said coupling pole are slots *e''*, and *e'''*, so that the said U-shaped bar may work back and forth and by means of the rods *e''*, bring the shoes *d'*, in contact with the periphery of the hind wheels. When the wagon is coupled long, the bolt *e*, passes through the slot *e''*, and the operation is the same as just above described.

In front of the front axle operate two cross bars *e'*, one above and the other below the hounds. These bars are secured together at each end to which is attached one end of a chain F. Each chain then passes round a pulley *f*, journaled between the axle and the bolster of the front running gear, and passes thence forward, and is secured to the lower ends of levers *f'*, which are pivoted at their middle to bearings *f''*, secured to the upper face of the hounds. Between the upper ends of said levers *f'*, is pivoted a lever *f'''*, to the lower and front end of which is secured a dove-tailed catch *f''''*, which is adapted to fit in a dovetailed notch *f'''''*, secured on the upper face of the wagon tongue A. To the rear end of said lever *f'''*, is pivoted a U-shaped bar *f''''*. To this bar *f''''*, is secured one end of a chain *f'''''*, the other end being divided and secured to the cross-bars *e'*. Between these bars *e'*, is secured a circular abutment *e''*, for the front end of the U-shaped bar *d'''*, to work against, and through a slot in said bars a bolt passes which also passes down through the U-shaped part of the said bar *d'''*, and holds it in place, yet allowing the front gear of the wagon to turn to the right or left, yet all the time keeping the curved end of said U-shaped bar *d'''*, against the face of the abutment *e''*. To the front end of the lever is secured one end of a cord *g*, or equivalent, the other end of which may be held in the hand or secured to the wagon.

The operation of my invention is as follows: The team being in and the dovetailed catch *f''''*, being in notch *f'''''*, when the wagon

starts down hill, the horses pull back against the front of the tongue, and the tongue slips back, which operation pushes the upper end of the levers f' , back and draws the lower end of said levers forward. This pulls upon the chains F. This pulls the cross-bars e^4 , back and brings the abutment e^5 , against the end of the U-shaped rod d^3 , and causes the free ends to slide backward and by means of the rods d^2 , pushes the swinging cross-bar d , back and consequently the shoes d' , which are attached to the ends of said bar against the periphery of the rear wheels. When the bottom of the hill is reached the team pulls forward and an exact reverse action is had and the wagon is unlocked.

The great advantage of my invention is in the front attachment. If I do not wish the wagon to lock going down hill, I pull upon the rope g , and lift the catch f^4 , out of the notch f^5 , and the wagon runs down hill without being locked, or if the team should from any cause refuse to hold back I pull the lever f^3 , up until its end impinges against the bolt h , and throws the lower ends of the levers f' , forward and locks the wagon, or should the team attempt to run away the same operation may be had, or should I wish to leave the team for a short time I can thus lock the wagon and secure the cord g , to the wagon body, standard or other part of the wagon which will keep the wagon locked until I return.

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

1. In combination with the running gear of a wagon, the slotted coupling pole B, having the horizontal slots e^2 , e^3 , and perpendicular perforations c , and c' ; cross-piece D, secured on the upper face of the hounds b ; cross-piece d , swung to said cross-piece D, and carrying in each end shoes adapted to impinge against the periphery of the rear wheels; rods d^2 , their rear ends secured to the cross-piece d , and their front ends to the U-shaped bar d^3 ; U-shaped bars d^3 , working on each side of the coupling pole B, its front end abutting against the abutment e^5 ; cross-bars e^4 , containing near their middle the abutment e^5 ; chains F, one end secured to the ends of said cross-bars e^4 , thence passing around the pulleys f , with their other ends secured to the lower ends of levers f' ; levers f' , pivoted in bearings f^2 ; lever f^3 , pivoted between the upper ends of levers f' ; catch f^4 , secured to the lower face of lever f^3 ; notch f^5 , secured to the upper face of the tongue A; tongue A, adapted to work back and forth between the front ends of the front hounds, cord g , secured to the front end of lever f^3 , substantially as shown and described and for the purposes set forth.

2. In combination with the running gear of a wagon, the slotted coupling pole B, having the horizontal slots e^2 , e^3 , and perpendicular

perforations c , and c' ; cross-piece D, secured on the upper face of the hounds b ; cross-piece d , swung to said cross-piece D, and carrying in each end shoes adapted to impinge against the periphery of the rear wheels; rods d^2 , their rear ends secured to the cross-piece d , and their front ends to the U-shaped bar d^3 ; U-shaped bar d^3 , working on each side of the coupling pole B, its front end abutting against the abutment e^5 ; cross-bars e^4 , containing near their middle the abutment e^5 ; chains F, one end secured to the ends of said cross-bars e^4 , thence passing around the pulleys f , with their other ends secured to the lower ends of levers f' ; levers f' , pivoted in bearings f^2 ; lever f^3 , pivoted between the upper ends of levers f' ; catch f^4 , secured to the lower face of lever f^3 ; notch f^5 , secured to the upper face of the tongue A; and tongue A, adapted to work back and forth between the front ends of the front hounds, substantially as shown and described and for the purposes set forth.

3. In combination with the running gear of a wagon provided with a locking device secured to the rear gear, substantially as shown and described, U-shaped bar d^3 , adapted to operate said locking device its front end abutting against the abutment e^5 ; cross-bars e^4 , containing said abutment e^5 ; chains F, one end of each secured to the ends of said cross-bars, then passing around the pulleys f , with their other end secured to the lower ends of levers f' ; levers f' , pivoted in bearings; lever f^3 , pivoted between the upper ends of said levers f' ; catch f^4 , secured to the lower face of lever f^3 ; tongue A, having notch f^5 , adapted to work back and forth between the front ends of the front hounds; cord g , secured to the front end of lever f^3 , substantially as shown and described and for the purposes set forth.

4. In combination with the running gear of a wagon provided with a locking device secured to the rear gear, substantially as shown and described, U-shaped bar d^3 , adapted to operate said locking device its front end abutting against the abutment e^5 ; cross-bars e^4 , containing said abutment e^5 ; chains F, one end of each secured to the ends of said cross-bars, then passing around the pulleys f , with their other end secured to the lower ends of levers f' ; levers f' , pivoted in bearings; lever f^3 , pivoted between the upper ends of said levers f' ; catch f^4 , secured to the lower face of lever f^3 ; and tongue A, having notch f^5 , adapted to work back and forth between the front ends of the front hounds; substantially as shown and described and for the purposes set forth.

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

ALFRED TURENNE NEWELL.

Witnesses:

G. T. BAKER,
E. B. MURRAY.