

A. N. FULKERSON & A. H. GUSEMAN.

Wagon-Brakes.

No. 153,065.

Patented July 14, 1874.

Fig. 1.

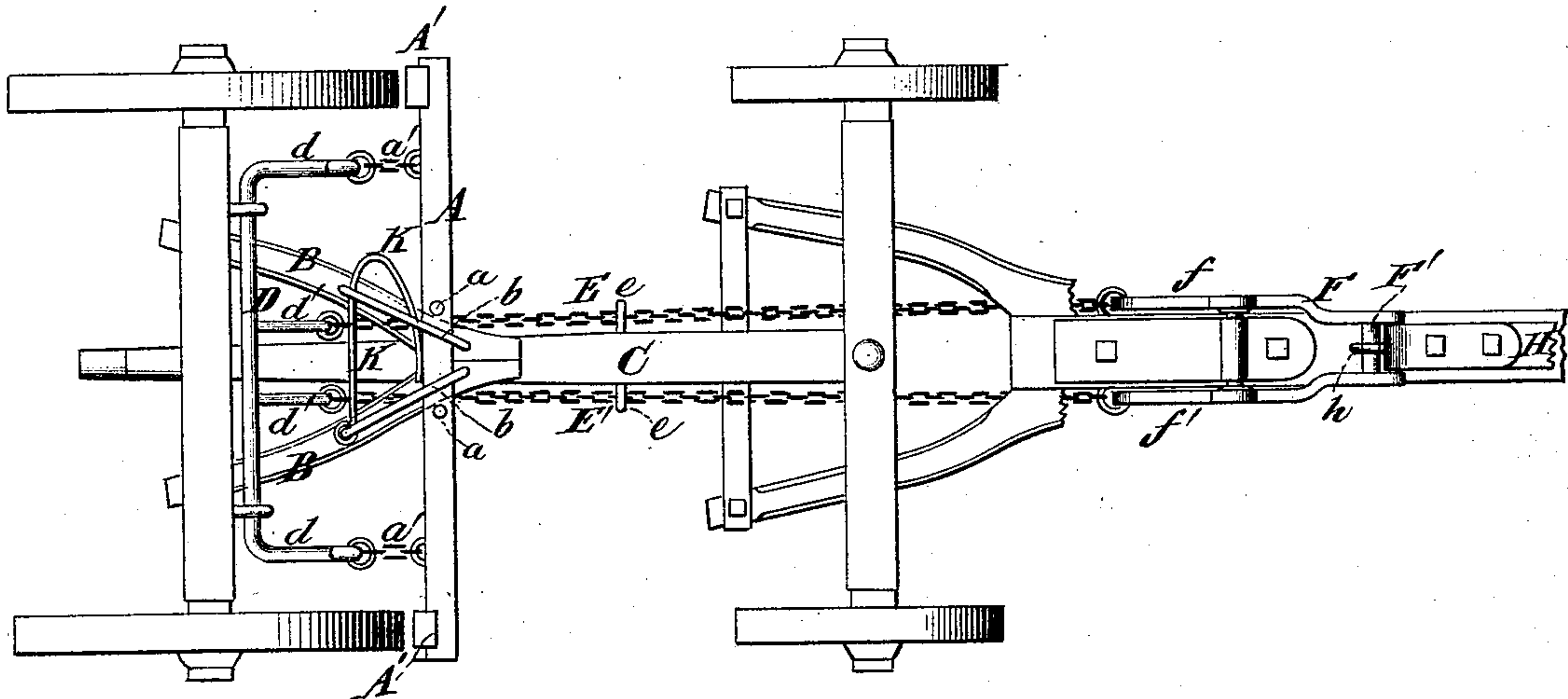


Fig. 2.

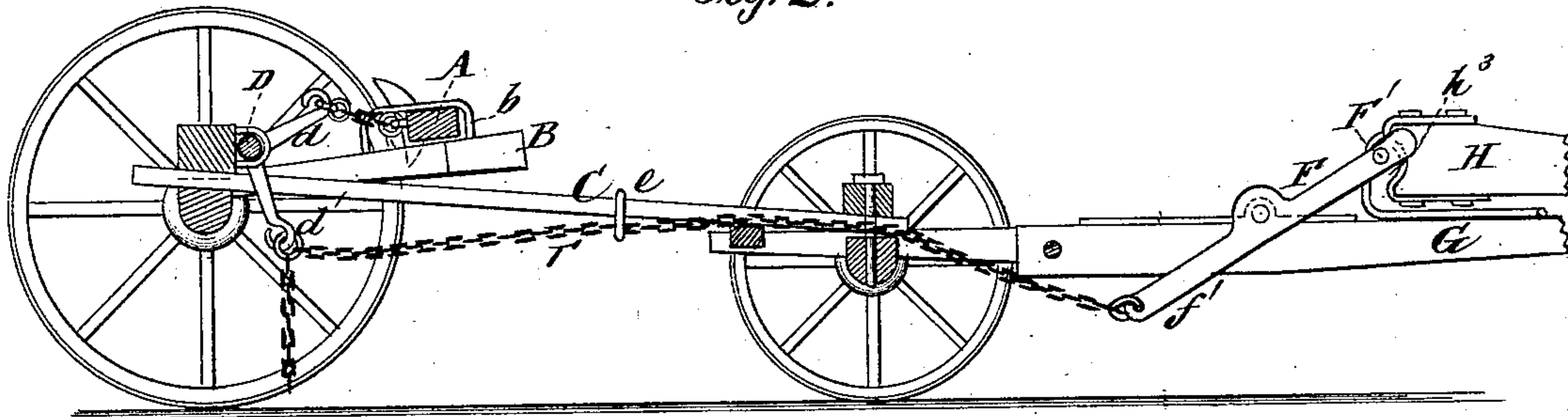


Fig. 3.

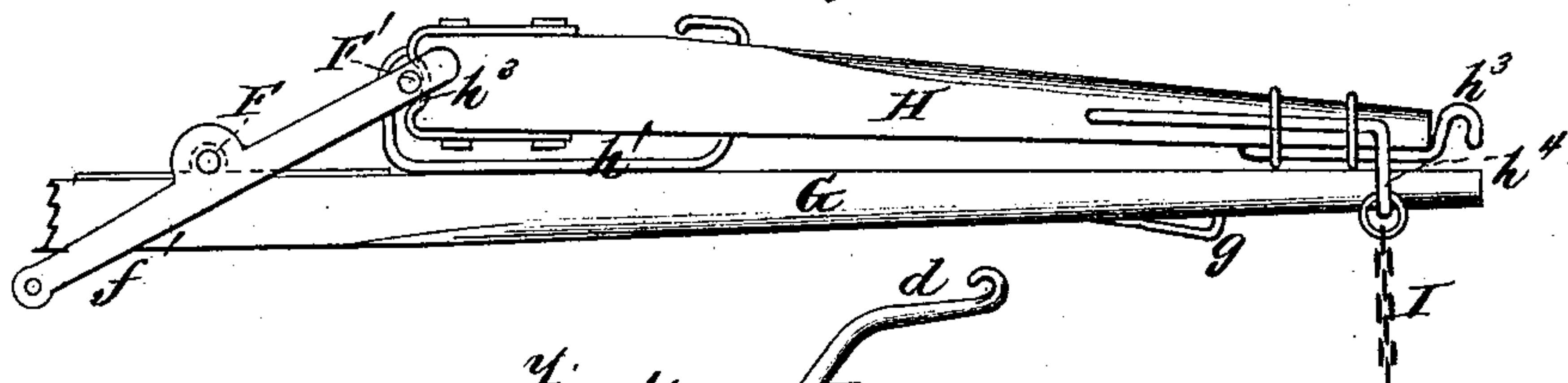
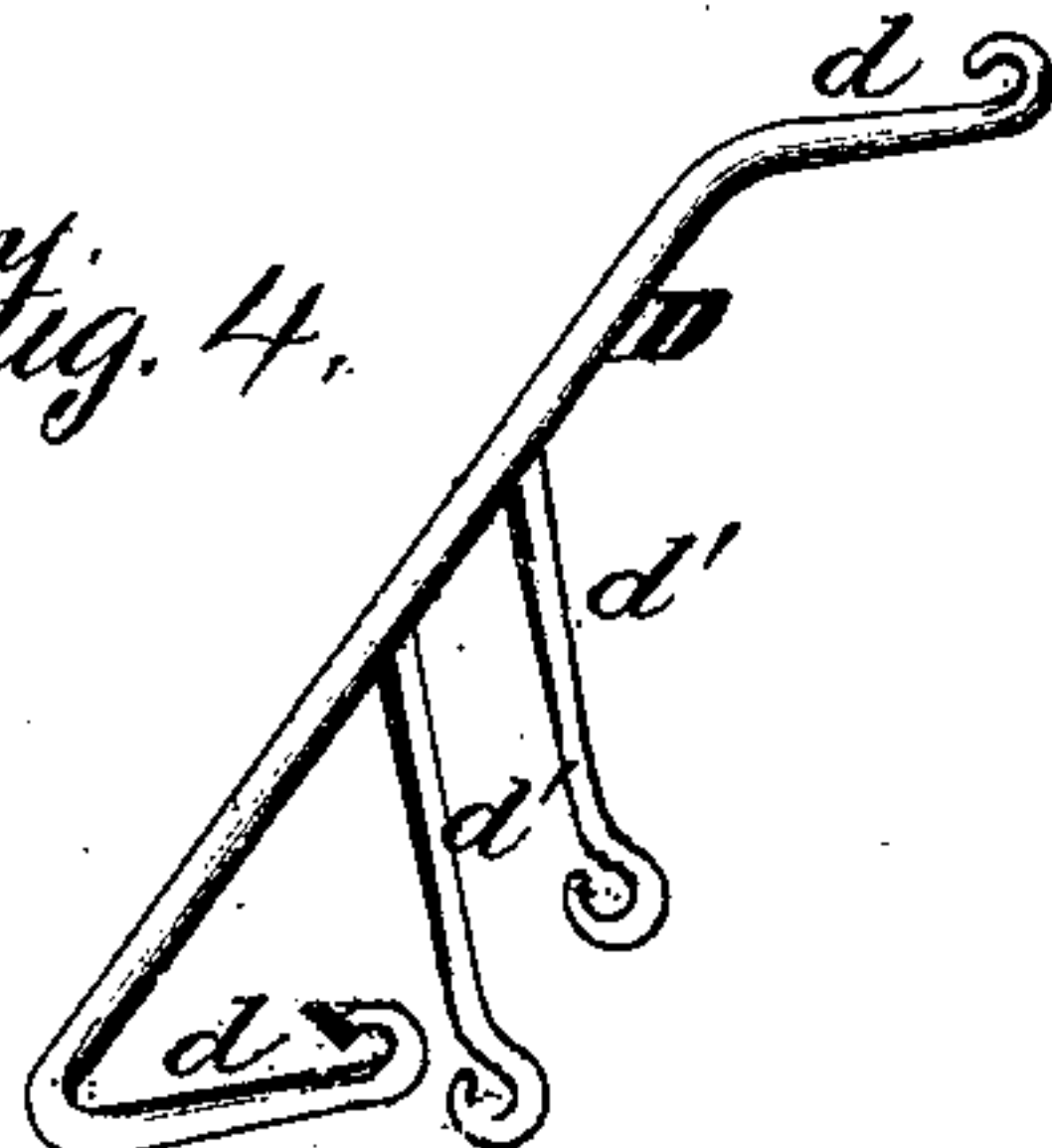


Fig. 4.



Witnesses:
A. Ruppert
C. E. J. Cils

A. L. Fulkerson &
A. H. Guseman
Inventor.
D. P. Holloway & Co
Atty

UNITED STATES PATENT OFFICE.

AMOS N. FULKERSON AND ABRAM H. GUSEMAN, OF MILLGROVE, INDIANA.

IMPROVEMENT IN WAGON-BRAKES.

Specification forming part of Letters Patent No. **153,065**, dated July 14, 1874; application filed April 8, 1874.

To whom it may concern :

Be it known that we, AMOS N. FULKERSON and ABRAM H. GUSEMAN, both of Millgrove, in the county of Blackford and State of Indiana, have invented a certain Improvement in Wagon-Brakes, of which the following is a specification :

The nature of our invention consists in the employment of a false tongue, arranged on the ordinary tongue, to which false tongue the pole straps or chains are attached, and which is by intermediate levers and chains connected to the brake-bar in such a manner that the brake will be applied whenever the draft animals are caused to hold back.

In the annexed drawings, Figure 1 is a plan view of the running-gear of a wagon with our improved brake apparatus, the main portion of both tongues being broken away on account of the limited size of the sheet. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 illustrates the tongues in detail. Fig. 4 is a perspective view of the crank-shaft through which the draft on the brake-chains is transmitted to the brake-bar.

The same letters of reference are used in all the figures in the designation of identical parts.

The brake-bar A is placed transversely across the top of the braces B of the reach C, under fixed staples or guides *b b* thereon, and in front of the hind wheels. Downwardly-projecting pins *a* will limit the endwise movement of the brake-bar, so that its shoes A' may always be in proper position with reference to the rims of the respective wheels. Near either end the brake-bar is linked, by chains *a' a'*, to the cranks *d d* of the shaft D, which rests in bearings secured to the bolster of the hind axle, and which is besides these horizontally-projecting cranks *d* also provided with downwardly-projecting fixed arms *d' d'* on either side of the reach. The brake-chains E and E', connected to the arms *d' d'*, extend forward, being guided through eye-bolts *e* on the reach and suitable apertures between the front axle and its bolster, and are with their forward ends secured respectively to the lever-arms *f* and *f'* of the yoke F, which is pivoted to the tongue or pole G, straddling the same with

its downwardly-projecting lever-arms *f* and *f'*. The cross-bar F' of the yoke plays in a recess, *h³*, in the end of the false tongue H, being confined by a loop, *h¹*, so connected to the false or brake tongue as to prevent the said cross-bar of the yoke from sliding past the end of the tongue in an upward direction, while on lifting the said tongue the cross-bar may be caused to pass between its under side and the loop. The brake-tongue is connected at its forward end, which extends to near the extremity of the pole G, by a loop, *h⁴*, to said pole, the loop serving at the same time as a means to which the pole-straps I are secured. The extremity of the brake-tongue is also provided with a hook, *h³*, to which a neck-yoke may be hooked, when that is used in lieu of pole straps or chains. It will be observed that when the parts are in the positions indicated in the drawings, the moment the draft animals are caused to hold back the brake-tongue will slide back on the pole and turn the yoke F on its fulcrum so as to draw on the brake-chains, which in turn oscillate the crank-shaft D, and apply the brake. A strong spring, K, secured to the braces B and bearing against the brake-bar, is used to throw off the brake, and return all the parts to their normal positions. The pole is provided with the usual hold-back, *g*; and by first slightly lifting the rear end of the brake-tongue and then pushing it back on top of the cross-bar F' of the yoke until its forward loop *h⁴* abuts against the hold-back of the pole, the brake apparatus can be thrown out of gear, so that the wagon may be backed in the ordinary manner without operating the brake.

The brake-chains should be provided with extra lengths and suitable rings, to lengthen and shorten them, according as a long or short reach is used. The rear end of the brake-tongue is suitably armed with a metal plate, to serve as the bearing-surface of the cross-bar F' of the yoke.

It is evident that one of the brake-chains might be dispensed with, and only one chain employed, by a slight modification of the parts.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination of the pole G *g* yoke

F F', brake-tongue H, provided with the loops h^1 and h^4 , chains E E', crank-shaft D, brake-bar A, and spring K, substantially as specified.

2. In combination with the pole G g and yoke F F', the brake-tongue H, provided with the loops h^1 and h^4 , substantially as and for the purpose specified.

In testimony whereof, we have signed our

names to this specification in presence of two subscribing witnesses.

AMOS N. FULKERSON,
ABRAM H. GUSEMAN.

Witnesses:

HENRY SHROYER,
JAMES G. BAIRD.