

No. 752,675.

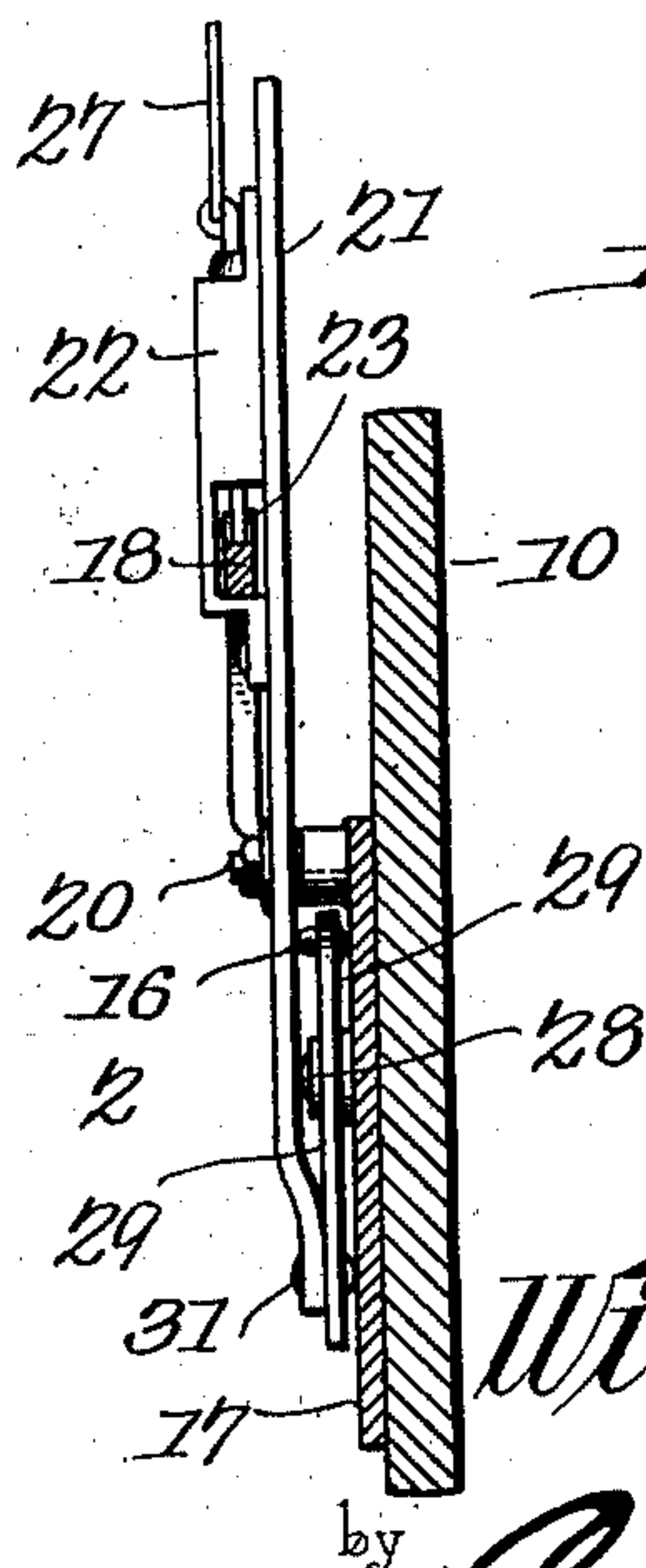
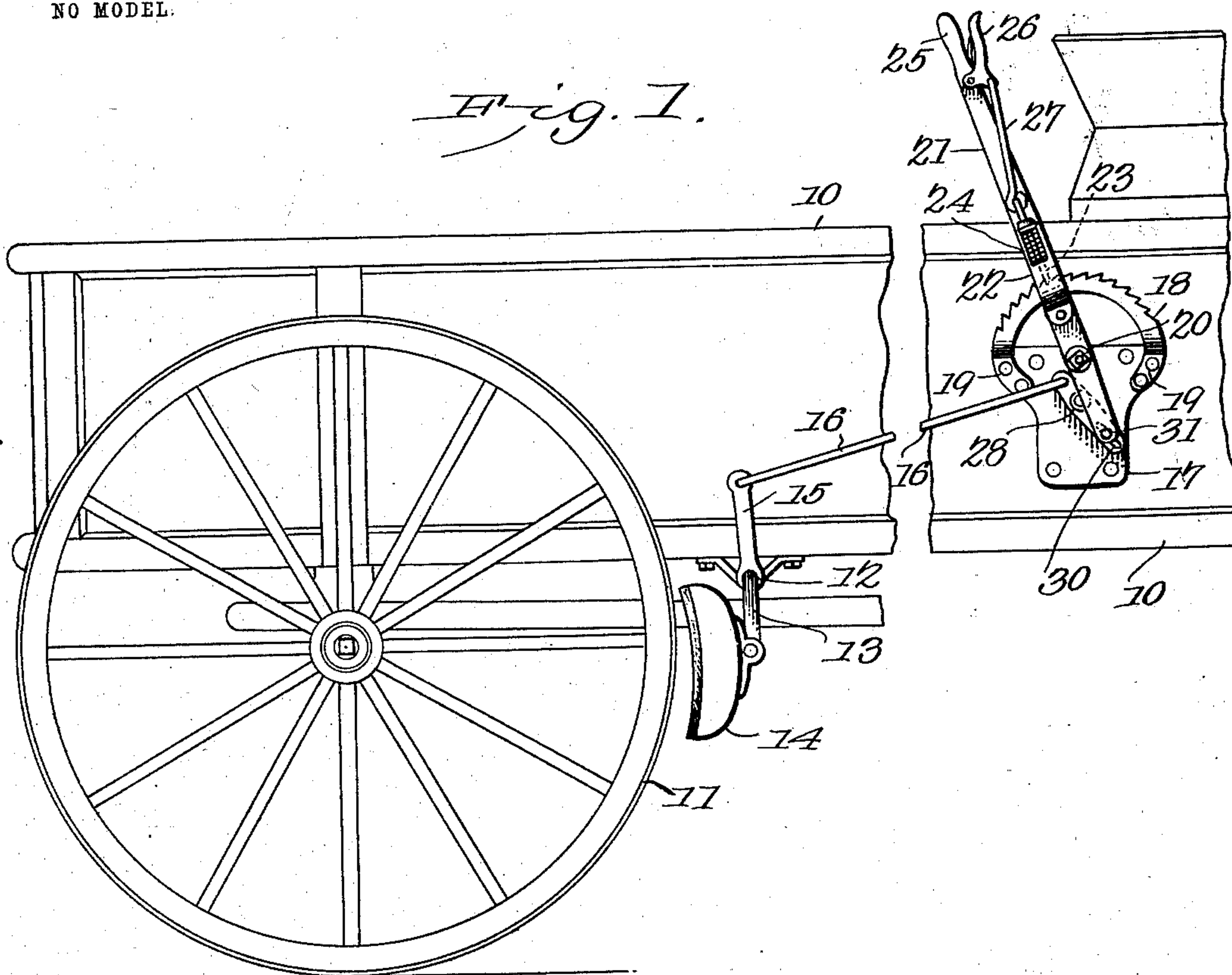
PATENTED FEB. 23, 1904.

W. S. HAYS.  
VEHICLE BRAKE.

APPLICATION FILED NOV. 25, 1903.

NO MODEL.

*Fig. 1.*



*Fig. 2.*

Witnesses

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# UNITED STATES PATENT OFFICE.

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## VEHICLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 752,675, dated February 23, 1904.

Application filed November 25, 1903. Serial No. 182,662. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM S. HAYS, a citizen of the United States, residing at Hillham, in the county of Dubois and State of Indiana, have invented a new and useful Vehicle-Brake, of which the following is a specification.

This invention relates to vehicle-brakes, and has for its object to improve the construction and enlarge the scope of such devices; and the invention consists in certain novel features of construction, as hereinafter shown and described, and specified in the claims.

In the drawings illustrative of the invention, in which correspondings parts are denoted by like designating characters, Figure 1 is a side view of a portion of a vehicle with the improved brake-operating devices applied. Fig. 2 is a sectional edge view of the brake-operating parts.

The improved device may be applied to any of the usual farm or lumber wagons or other vehicles requiring brakes and for the purpose of illustration is shown applied to an ordinary farm-wagon, 10 representing the body or box, 11 the rear wheels, 12 the usual rocker-shaft carrying the depending arms 13 at the ends, to which the brake-shoes 14 are attached. The brake-rod arm is represented at 15, rising from the rocker-shaft 12, and the brake-rod at 16, extending forwardly, as shown. These parts are all of the usual construction, and as their construction and mode of operation are so well known they are not further illustrated.

Attached to the body portion 10, preferably near the forward end, is a base-plate 17, having a segmental ratchet-bar 18 attached thereto, as at 19.

Pivoted at 20 near one end is a primary or handle lever 21, having a "housing" 22, in which a pawl 23 operates and is held in yieldable engagement with the ratchet-teeth by a spring 24.

The lever 21 terminates in a handle 25 and is provided adjacent to the handle with a pivoted hand-lever 26, connected by a rod 27 to the pawl 23, as shown. By this arrangement it will be obvious that the lever 21 may be ad-

justed and held at any desired point relative to the ratchet-bar.

Pivoted at 28 to the plate 17 is a secondary lever 29, having in its longer end a longitudinal slot 30, in which a pin 31, extending from the shorter end of the primary lever 21, operates, while the forward end of the rod 16 is connected to the shorter end of the secondary lever, as shown. By this simple arrangement a very strong compound leverage-power is applied to the brake mechanism when the longer or handle lever 21 is operated, while at the same time by reason of the novel arrangement of the levers and connections the brake-shoes 14 are moved a relatively long distance away from the wheels 11 without increase in the "arc" through which the handle-lever is moved. This is a very important advantage, as the brake-shoes are thus prevented from catching any of the mud or other material carried over by the wheels, which frequently obstruct brake-shoes as ordinarily constructed with a limited "throw" of the rocker shaft or beam.

The plate 17 will preferably be of cast-iron and the other parts of steel; but all the parts may be of steel or other metal, if desired, and may be modified in minor particulars without departing from the principle of the invention or sacrificing any of its advantages.

Having thus described the invention, what I claim is—

1. In a device of the class described, a base-plate having a segmental ratchet connected thereto, a primary lever pivoted near one end to said plate concentric to said segment and having a pawl for engagement with said ratchet, a secondary lever pivoted near one end to said plate and having a longitudinal slot in its longer end for engagement by a pin in the shorter end of said primary lever, and means for connecting the shorter end of said secondary lever to the object to be actuated.

2. In a device of the class described the combination of a brake mechanism, an operating-rod connected to said brake mechanism, a base-plate having a relatively short lever pivoted near one end to said plate and connected by

its shorter end to said rod, and with a longitudinal slot at its longer end, a relatively long handle-lever pivoted near one end to said plate and having a pin extending from its shorter  
5 end into said slot, a segmental ratchet upon said plate, and a pawl upon the longer portion of said longer lever engaging said ratchet-segment.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature 10 in the presence of two witnesses.

WILLIAM S. HAYS.

Witnesses:

S. W. CLAPP,  
SHERMAN LAGENAM.