

A. HART.
Wagon-Brake.

No. 197,778.

Patented Dec. 4, 1877.

Fig. 1.

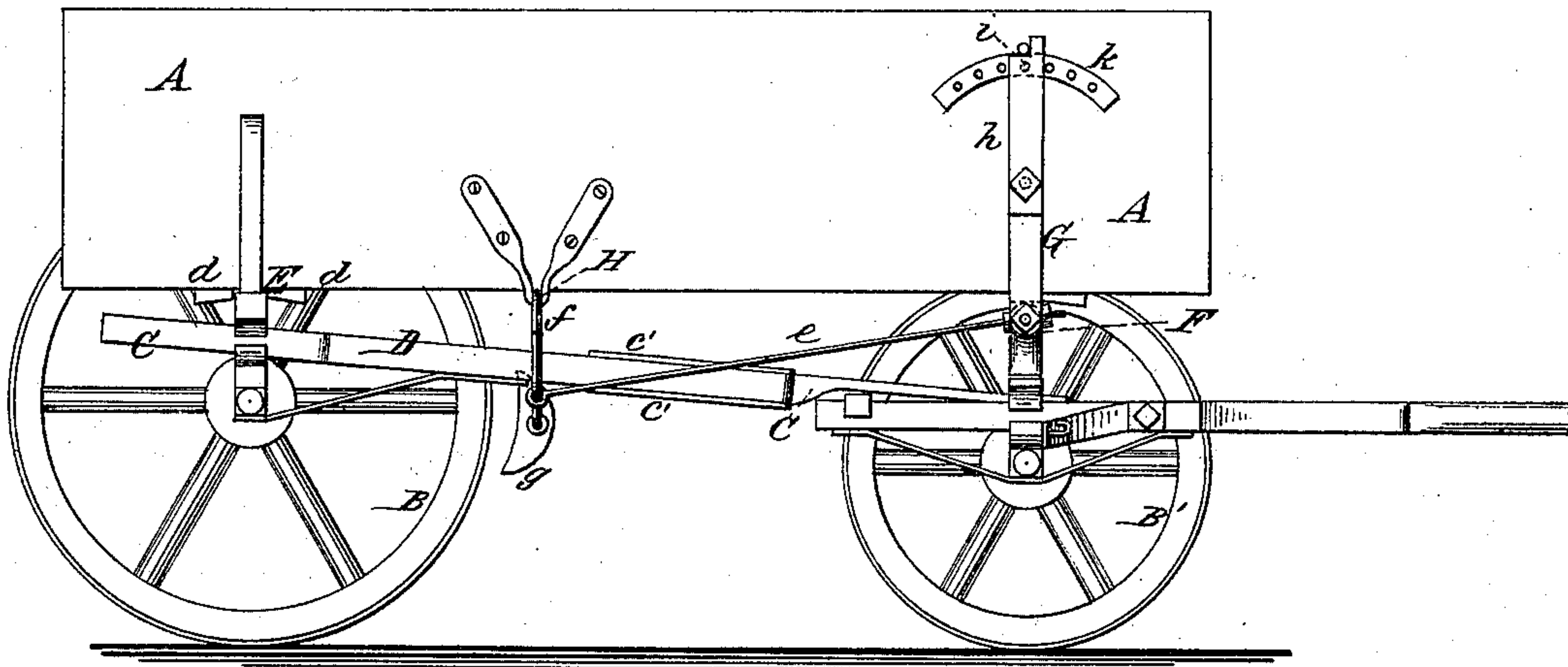
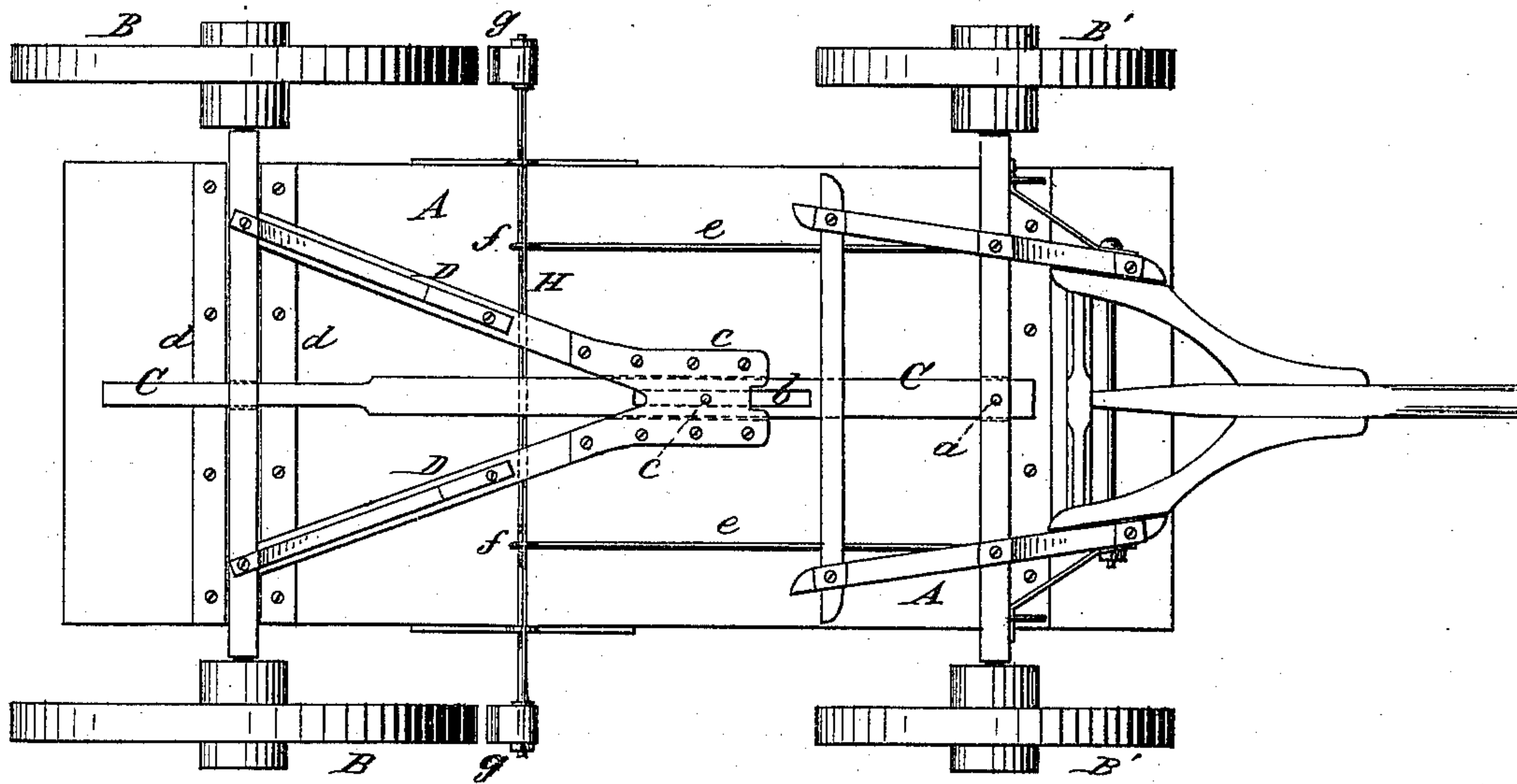


Fig. 2.



WITNESSES:

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ALFRED HART, OF SAN MARCOS, TEXAS, ASSIGNOR TO HIMSELF AND
HORACE C. STOREY, OF SAME PLACE.

IMPROVEMENT IN WAGON-BRAKES.

Specification forming part of Letters Patent No. **197,778**, dated December 4, 1877; application filed
August 3, 1877.

To all whom it may concern:

Be it known that I, ALFRED HART, of San Marcos, in the county of Hays and State of Texas, have invented a new and Improved Wagon-Brake, of which the following is a specification:

The invention relates to wagons which have brakes applied to them, so constructed that in descending a grade the brakes will be automatically applied, and, in moving on a level or ascending a hill, the brakes will be relieved from the wheels.

The nature of my invention consists in hanging the wagon-body so that it is free to receive endwise movement on its front bolster, in combination with a cranked brake-shaft applied to the wagon-body, and connected by rods to the front bolster, as will be hereinafter explained.

In the annexed drawing, Figure 1 is an elevation of one side of a wagon, with the nigh wheels removed, improved by my self-acting brake. Fig. 2 is a bottom view of the wagon.

Similar letters of reference indicate corresponding parts.

The letter A designates the bed or body of a wagon; B, the rear wheels, and B' the front wheels. C designates the perch, which is connected, at its front end, to the king-bolt *a*, and passed loosely through a space formed between the front ends of the two rear hounds D, and between the rear bolster and axle. The perch C is slotted longitudinally at *b*, and receives through the slot a pin, *c*, which is fixed to the top and bottom plates *c' c'* of the hounds D. The rear bolster E is fitted between two transverse battens, *d d*, secured to the bottom of the wagon, which prevents the body from receiving endwise movement on this rear bolster. The front bolster F is pivoted to the lower ends of two arms, G, which are suitably pivoted to the vertical sides of the wagon-

body, so that the body can rock longitudinally. This front bolster F is connected by rods *e e* to cranks *f f* on a brake-shaft, H, which is allowed to rock in bearings rigidly fixed to the bottom of the wagon-body. To the horizontal portions of the angular ends of the brake-shaft H shoes *g g* are applied, which are brought hard against the peripheries of the rear wheels B B when the wagon descends a grade, by the body of the wagon moving forward on the front arms G. It will thus be seen that the steeper the grade the wagon descends the more forcibly will the brakes be pressed against the wheels.

One of the arms, G, extends up nearly to the top of the wagon-body, and receives through it a pin, *i*, that is applied to a spring, *h*, fixed to the arm G. The pin *i* is designed to engage with a perforated segment, *k*, fixed to the side of the wagon-body, and hold the arm rigid when it is not desired that the brakes should be applied.

The front hounds and the draft-tongue are constructed and applied in the usual well-known manner.

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

The movable wagon-body A, the longitudinally-adjustable perch C, cranked shaft H, carrying-shoes *g*, pivoted supporting-arms G, connecting-rods *e*, and a suitable locking device applied to one of said arms and the wagon-body, in combination with the front and rear bolsters F E, front and rear hounds, and the running-gear, as and for the purpose set forth.

ALFRED HART.

Witnesses:

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