D. C. FRAZEUR.

Sleigh.

No. 86,525. Patented Feb. 2, 1869.

Fig: 1

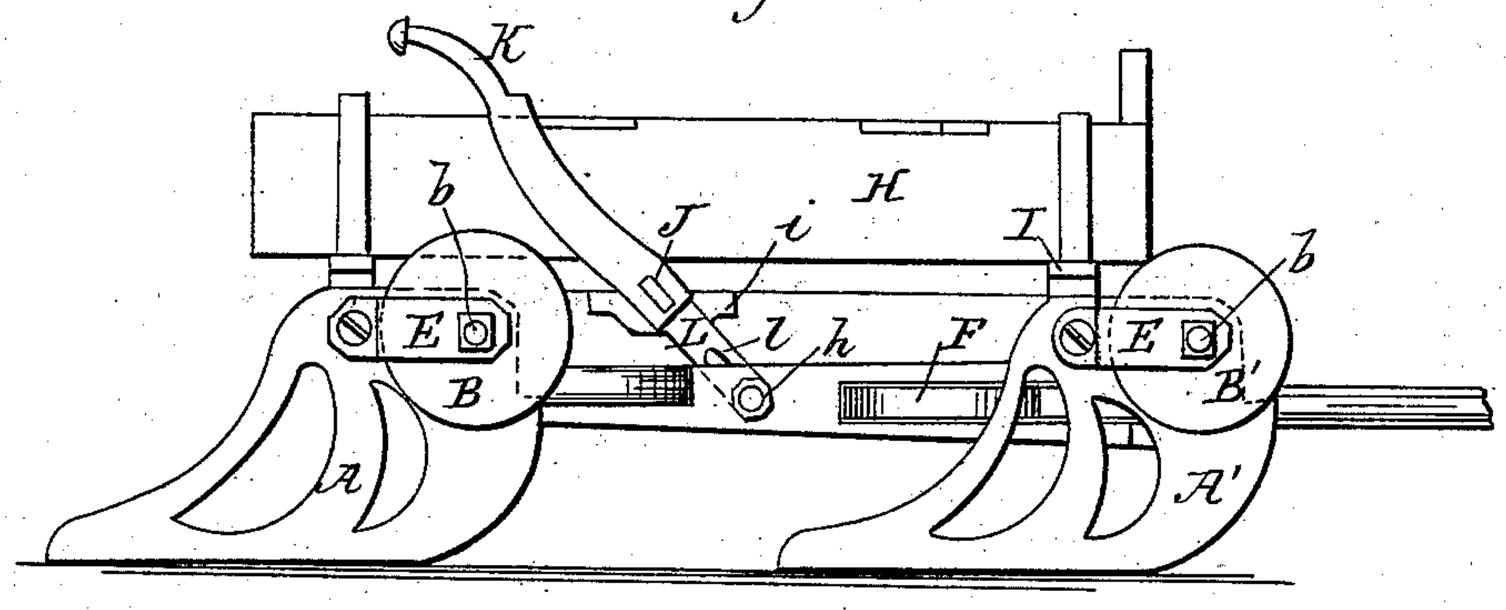
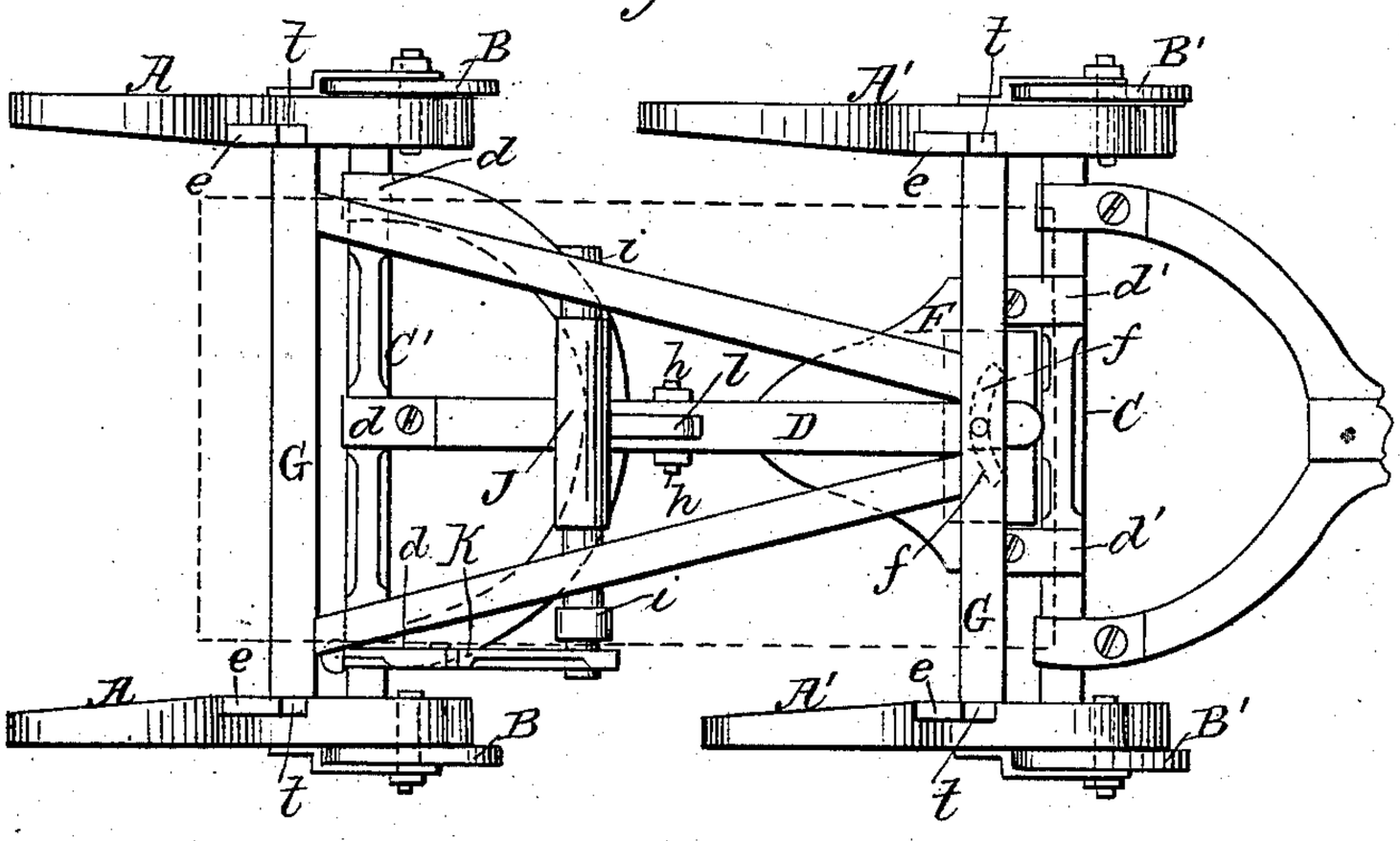


Fig: 2.



Witnesses;

C. A. Pettit

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DAVID C. FRAZEUR, OF SIDDONSBURG, PENNSYLVANIA.

Letters Patent No. 86,525, *dated February* 2, 1869.

IMPROVED SLEIGH AND WHEELED VEHICLE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, DAVID C. FRAZEUR, of Siddonsburg, in the county of York, and State of Pennsylvania, have invented a new and improved Sleigh and Sled; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation, and

Figure 2, a plan.

This invention is an improvement upon the device patented to DAVID C. FRAZEUR, January 28, 1868, No. 73,885, and consists in a new apparatus for throwing the carriage upon its wheels or its runners; a new method of attaching the wheels to the runners; and a new construction of the axle and reach, whereby the vehicle can be more readily turned, whether on wheels or runners.

In the drawings—

A A A′ A′ are the runners, and

B B B′ B′ are the wheels, the latter not being inserted in gains, as in the former case, but being hung on the outer side of the runners, upon pins *b b*, and confined and supported by iron plates E E.

C C′ are the axles, firmly fixed to the runners, and united by a reach, D.

The latter is directly attached to the rear axle C′, by straps *d d d*, in which said axle can rotate freely, but is not directly attached to the forward axle C.

Instead, it is attached to a wooden or metallic board, F, by means of a pin working in a curved slot, *f*, in the board.

The reach, at its forward end, is bifurcated, the board F extending through the space between the two forks, as seen in fig. 1.

The board is connected to the forward axle by straps, *d d′*, similar to those shown at *d d*, and for the same purpose.

The object of this arrangement is to enable the vehicle to turn about freely, without cramping or straining any of its parts, whether running on wheels or runners.

G G are two cross-beams connecting the runners, as shown in fig. 2.

They are supported on bolts or trunnions *t t*, which pass through the runners, and turn freely in their bearings.

The runners can be readily tipped forward to any practicable extent, but, by reason of a shoulder, *e*, which acts against the square edge of the cross-beams, they cannot be tipped backward, or be made to rear up.

The two cross-beams G G support the carriage-body H, the forward end of the latter resting upon a bolster, I.

J is a rocker bearing in boxes or sockets *i i*, attached to the frame, and capable of being rocked by means of a lever, K.

A connecting-rod, L, runs from the rocker to a vertical mortise through the reach, in which it is fastened by a cross-bolt, *h*, extending through a slot, *l*.

The connecting-rod is rigidly fixed to the rocker, but is free to rock on the pin *h*, the mortise being long enough to accommodate it.

By throwing the lever K forward, the frame H is thrown forward and the reach backward, which elevates the heel of the runners, and brings the carriage upon the wheels. By throwing the lever back again, this action is reversed, and the weight of the carriage again brought upon the runners.

The whole operation is exceedingly easy and convenient, and requires but little power to accomplish the desired effect.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. Attaching the wheels B B to the outside of the runners, by means of the pins *b* and the metallic plates E, substantially as described.

2. The combination of the axles C C′, straps *d d′*, board F, slotted, as shown at *f*, and bifurcated reach D, substantially as shown and described and for the purpose specified.

3. The combination of runners A A A′ A′, axles C C′, cross-beams G G, reach D, frame H, rocker J, lever K, and connecting-rod L, substantially as and for the purposes specified.

To the above specification of my improvement I have set my hand, this 5th day of December, 1868.

DAVID C. FRAZEUR.

Witnesses:

GEORGE BURNS,

A. R. RENEKER.