

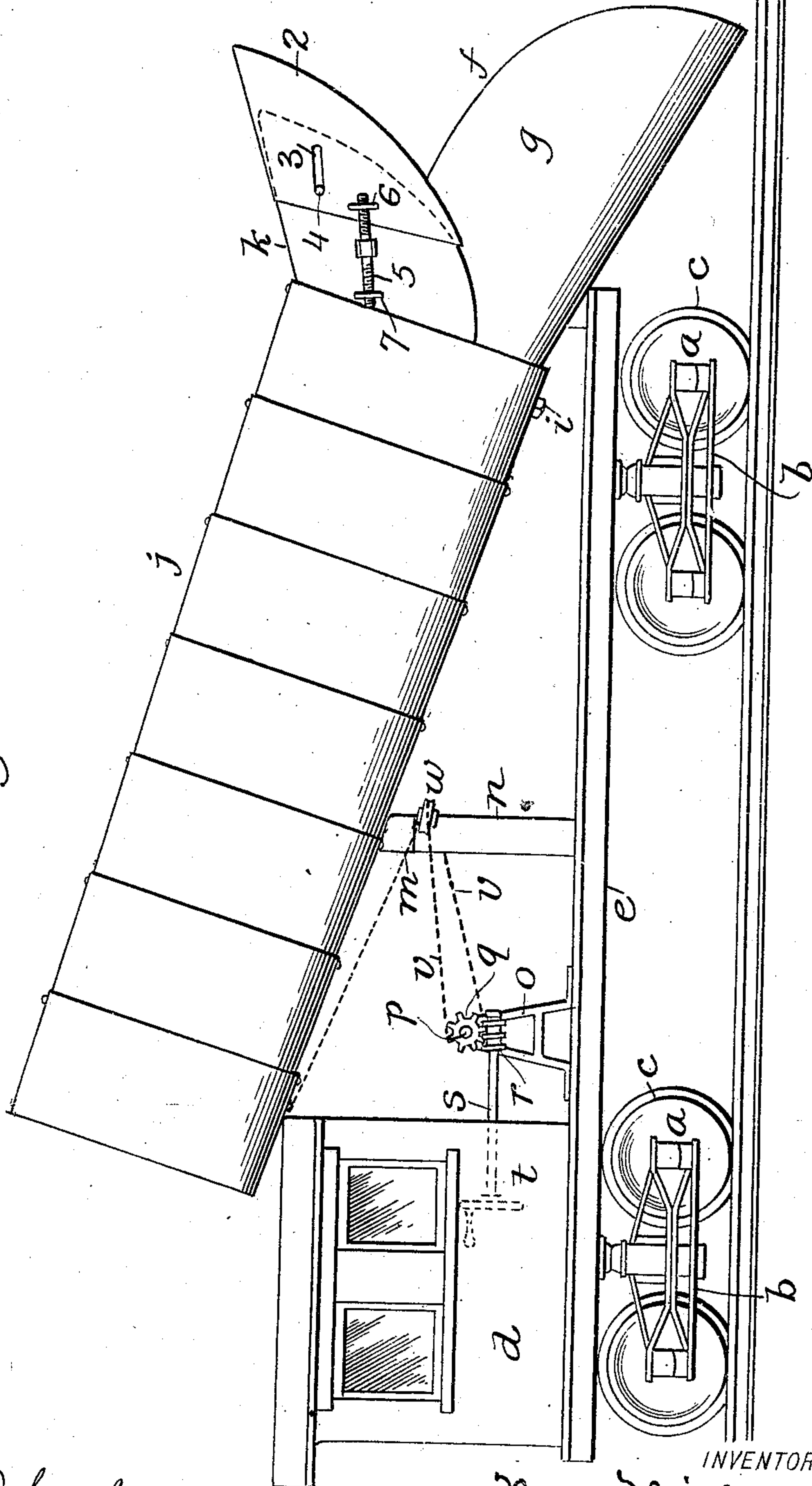
No. 842,461.

PATENTED JAN. 29, 1907.

N. HILL.
RAILWAY SNOW PLOW.
APPLICATION FILED JUNE 28, 1906.

2 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

James D. Duhamel.
W. Hamilton.

INVENTOR

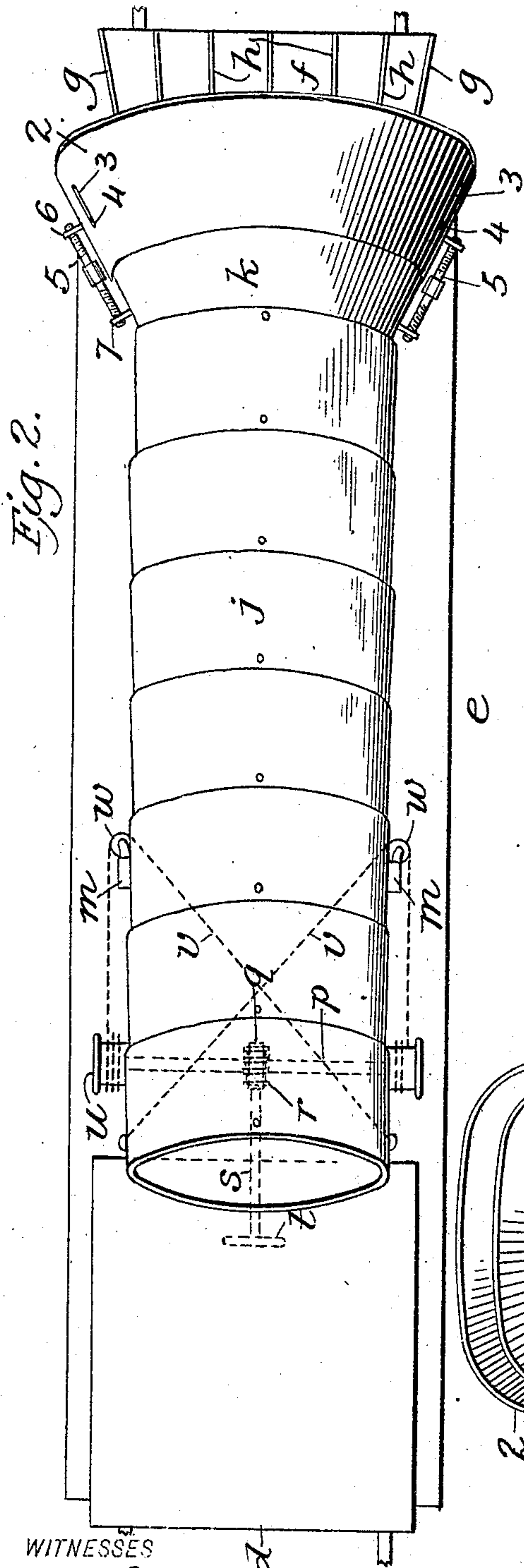
N. Hill
BY
James Hamilton
ATTORNEY

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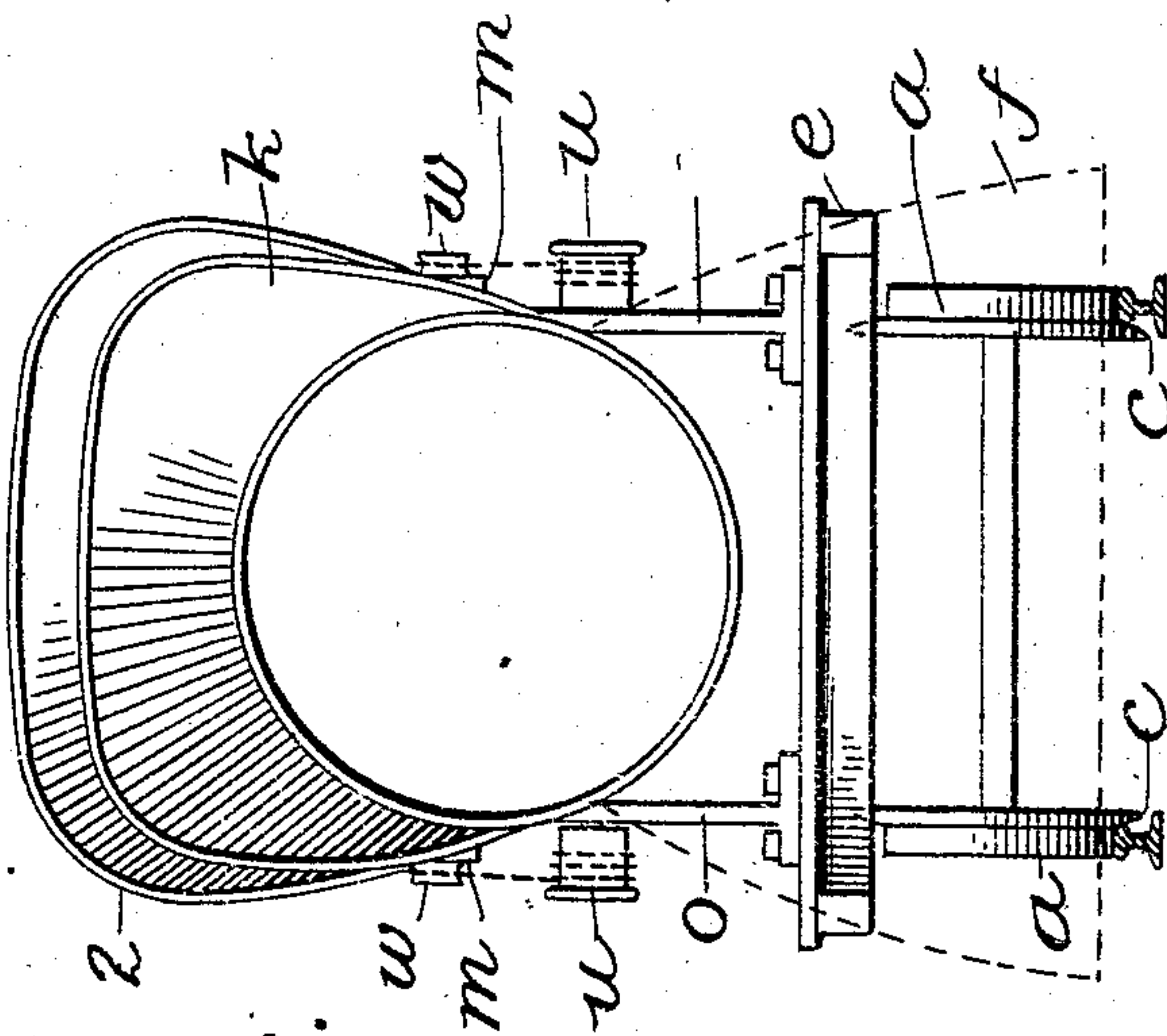
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2 SHEETS--SHEET 2.



WITNESSES

James F. Duhamel
In. Hamilton.



INVENTOR

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NELS HILL, OF SYKESTON, NORTH DAKOTA.

RAILWAY SNOW-PLOW.

No. 842,461.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed June 28, 1906. Serial No. 323,920.

To all whom it may concern:

Be it known that I, NELS HILL, a citizen of the United States, residing in Sykeston, in the county of Wells and State of North Dakota, have invented certain new and useful Improvements in Railway Snow-Plows, of which the following is a description, reference being had to the accompanying drawings.

My invention relates to improvements in railway snow-plows; and the object of my invention is to provide a snow-plow of simple construction and efficient operation.

In the drawings illustrating the principle of my invention and the best mode now known to me of applying that principle, Figure 1 is a side elevation of my new snow-plow. Fig. 2 is a plan view of the same, and Fig. 3 is a front end view of the same.

The wheels *a* of the trucks *b*, Figs. 1 and 3, are provided with a sharp flange *c*, which enables them to cut through the snow, and thereby prevents the wheels being forced off the track. Upon the trucks *b* is mounted the body *e* of an ordinary flat-car, upon the rear end of which is a cab *d* and upon the front end of which is a scoop *f*, which inclines downwardly and to the front, so as to cut close to the rails. The scoop *f* is provided with side knives *g* and with intermediate cutters *h*, Fig. 2, which serve to cut up into small chunks any snow which may be packed solidly, as in a drift. The path cut by the side knives *g* is of sufficient width to insure the ready passage of the train.

Pivotally connected with the scoop *f* by the bolt *i* is a funnel or chute *j*, which is made up of sections pivotally secured together, as shown in the drawings. This sectional construction gives to the funnel a certain flexibility which tends to avoid jamming of the snow in the funnel. The funnel *j* is provided with an upwardly and forwardly projecting mouthpiece *k*, over which is fitted a movable hood 2, the latter being formed with slots 3, through which project studs 4 from the mouthpiece *k*. To adjust the hood 2, a pair of right and left hand screws 5 is provided, one end of which engages a threaded lug 6 on the hood and the other end of which engages a threaded lug 7, fast upon the mouthpiece *k*. By varying the position of the hood 2 the amount of suction of the air up through the chute or funnel *j* may be varied. If the plow

is run into a snow-drift, the position of the hood 2 may be changed so as to avoid all wedging action.

The funnel *j* rests upon the cross-bar *m*, supported by the standards *n*, mounted one on each side of the car-body *e*. To move the funnel from side to side of the cross-bar *m*, the following mechanism is provided: Mounted on the body *e* are a pair of standards *o*, which support a shaft *p*, to which is secured a worm-wheel *q*, which meshes with a worm *r* on the end of a shaft *s*, extending back into the cab *d* and provided with a hand-wheel *t*. (See Figs. 1 and 2.)

Upon each end of the shaft *p* is a drum *u*, around which is wound a cord *v*, one end of which is secured to the drum and the other end of which is secured to the opposite side of the funnel *j*, Fig. 2. The cords *v* are wound in opposite directions upon their respective drums, so that as the shaft *s* is rotated the cord will be wound upon one drum and paid off from the other drum a like amount. Each cord runs through a block or sheave *w*, mounted on one of the standards *n*. By turning the hand-wheel *t* the operator is able to shift the discharge end of the funnel, so that the snow will be thrown with the wind and not against it.

My new snow-plow is automatic in action, a current of air being directed up through the chute of such strength as to clear the chute and throw the snow far from the track.

What I claim is—

1. In a railway snow-plow, the combination of a car; a scoop mounted thereon; a funnel mounted on said car and free to swing from side to side thereof, said funnel being provided with a mouthpiece which projects outwardly over said scoop; and means for swinging said funnel.

2. In a railway snow-plow, the combination of a car; a scoop mounted thereon; a funnel mounted free to swing on said car and provided with an outwardly-projecting mouthpiece; and a hood mounted free to slide on said mouthpiece lengthwise of said car.

3. In a railway snow-plow, the combination of a car; a scoop provided with cutters intermediate its sides; a funnel extending upwardly and rearwardly from said scoop and pivotally secured thereto and provided with

a mouthpiece extending outwardly over said scoop; and means for shifting said funnel.

4. In a railway snow-plow, the combination of a car; a flexible funnel made up of several sections pivotally secured together; and a scoop pivotally secured to which is the forward section of said funnel.

5. In a railway snow-plow, the combination of a car provided with a cab near one end thereof; a scoop mounted at the other end of said car; a funnel mounted free to swing on said car from side to side thereof; and mechanism operable from said cab for swinging said funnel, said mechanism comprising a windlass; cords secured to said fun-

nel and windlass; and means for rotating said windlass.

6. In a railway snow-plow, the combination of a car; a scoop mounted thereon; a funnel mounted free to swing on said car; a windlass mounted on said car; and cords connected with said funnel and windlass.

In testimony whereof I hereunto set my hand, in the presence of two witnesses, this 22d day of June, 1906.

NELS HILL.

Witnesses:

EDWARD P. KELLY,
LOUISE M. KELLY