No. 785,204. PATENTED MAR. 21, 1905.

C. DIETRICH.

SNOW PLOW.

APPLICATION FILED DEC. 15, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

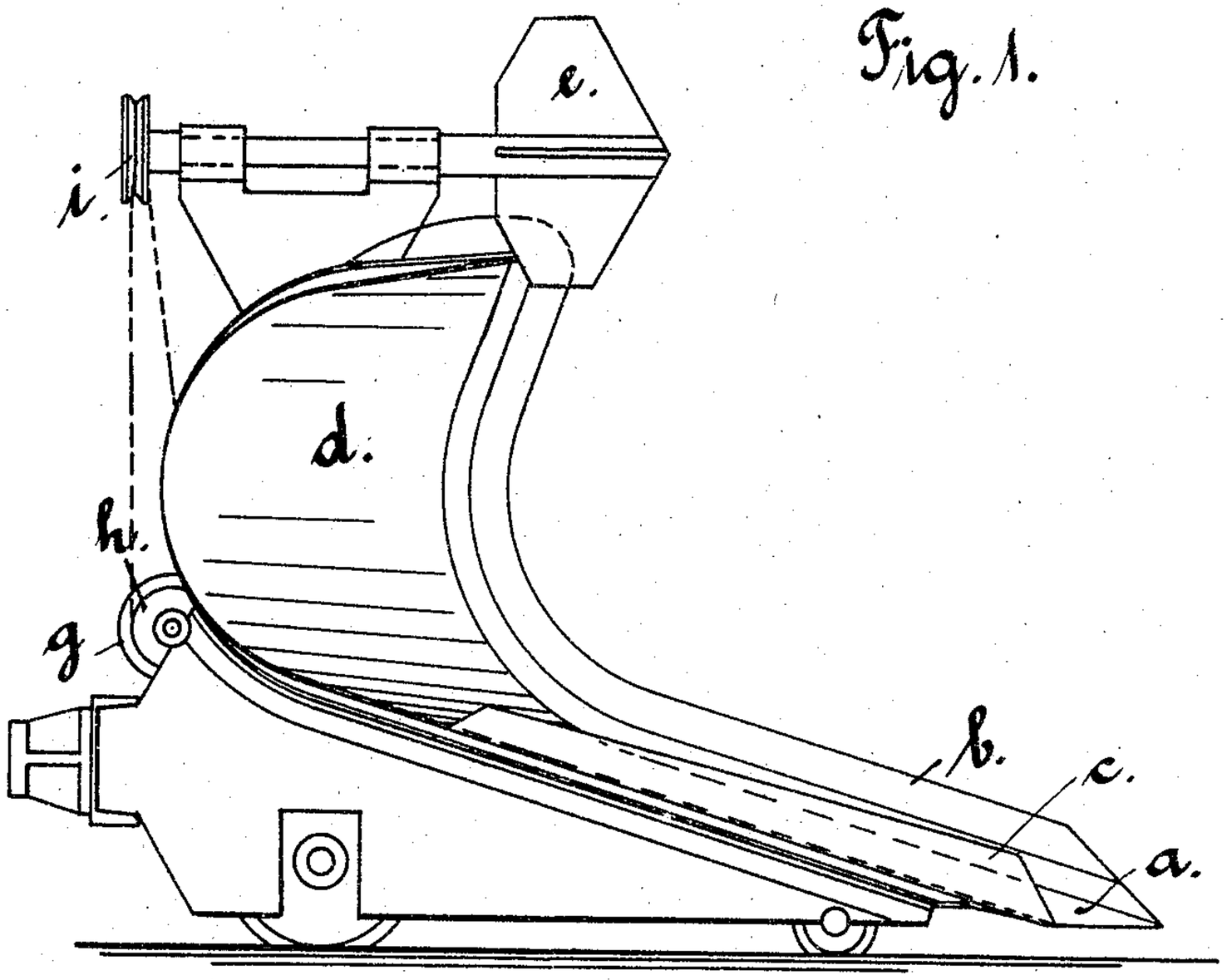
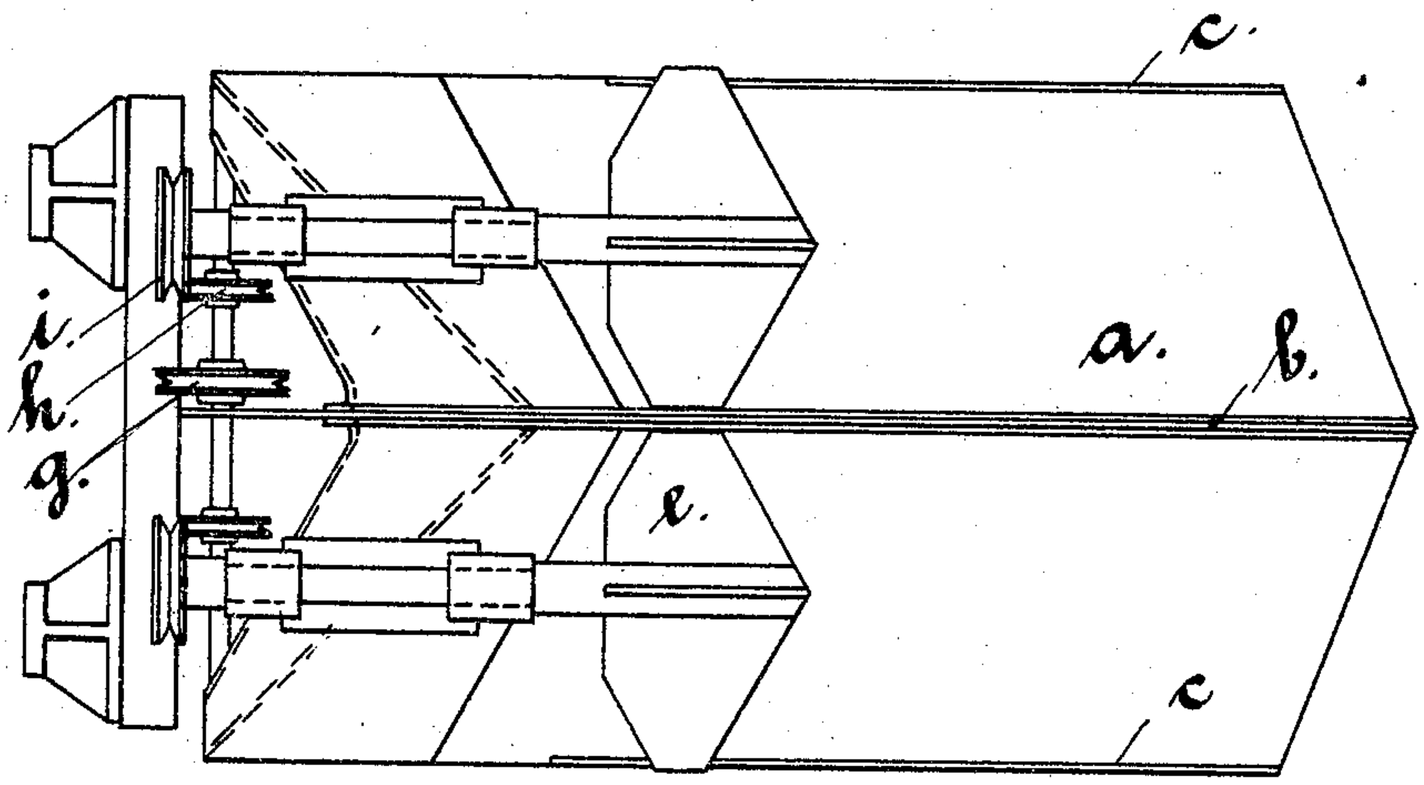



Fig. 2.




Witnesses:
Marg. Peters.
Alfred Bühring.

Inventor:
Carl Dietrich
by Erich Peters
his attorney.

No. 785,204. PATENTED MAR. 21, 1905.

C. DIETRICH.

SNOW PLOW.

APPLICATION FILED DEC. 15, 1904.

2 SHEETS—SHEET 2.

Fig. 3.

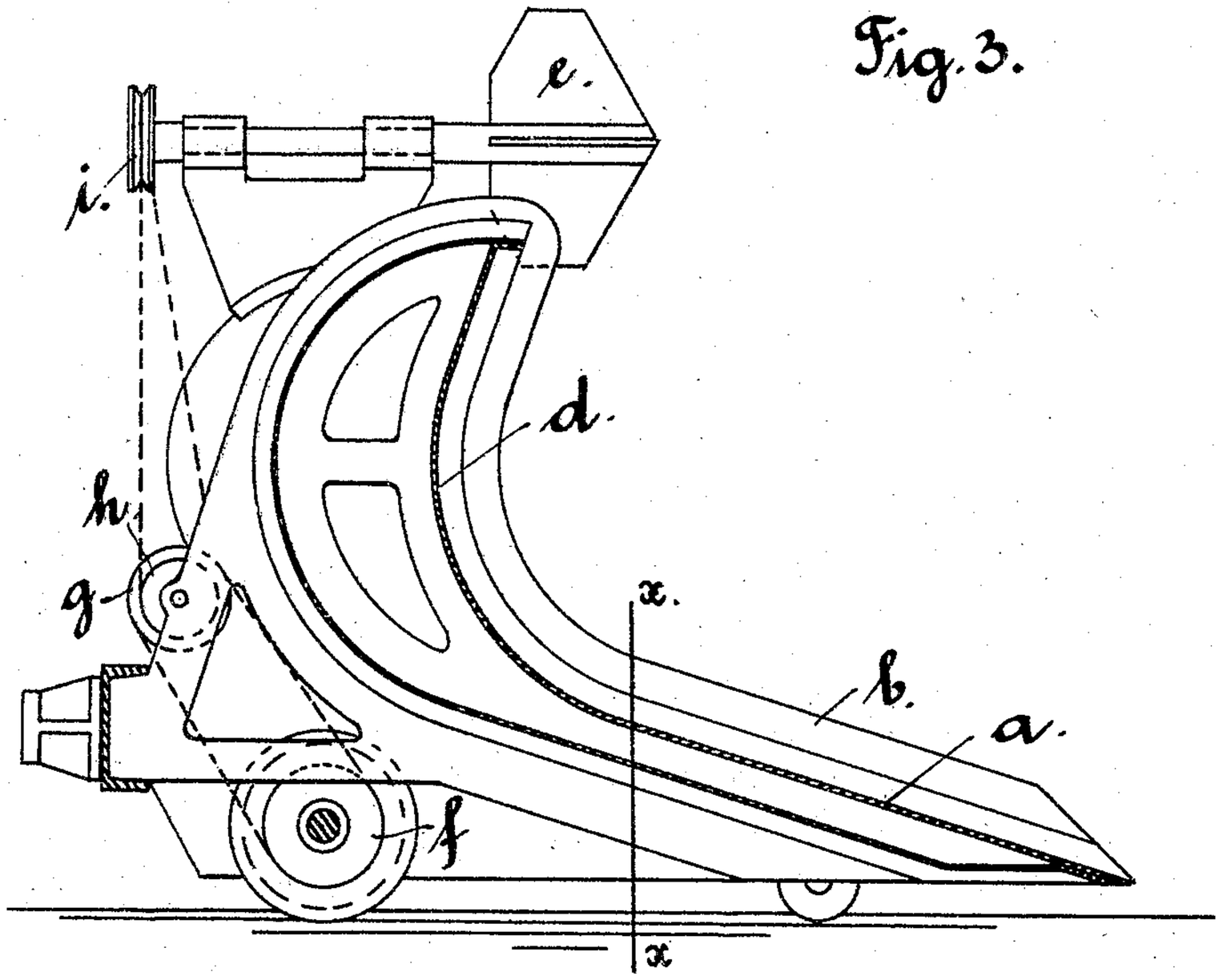
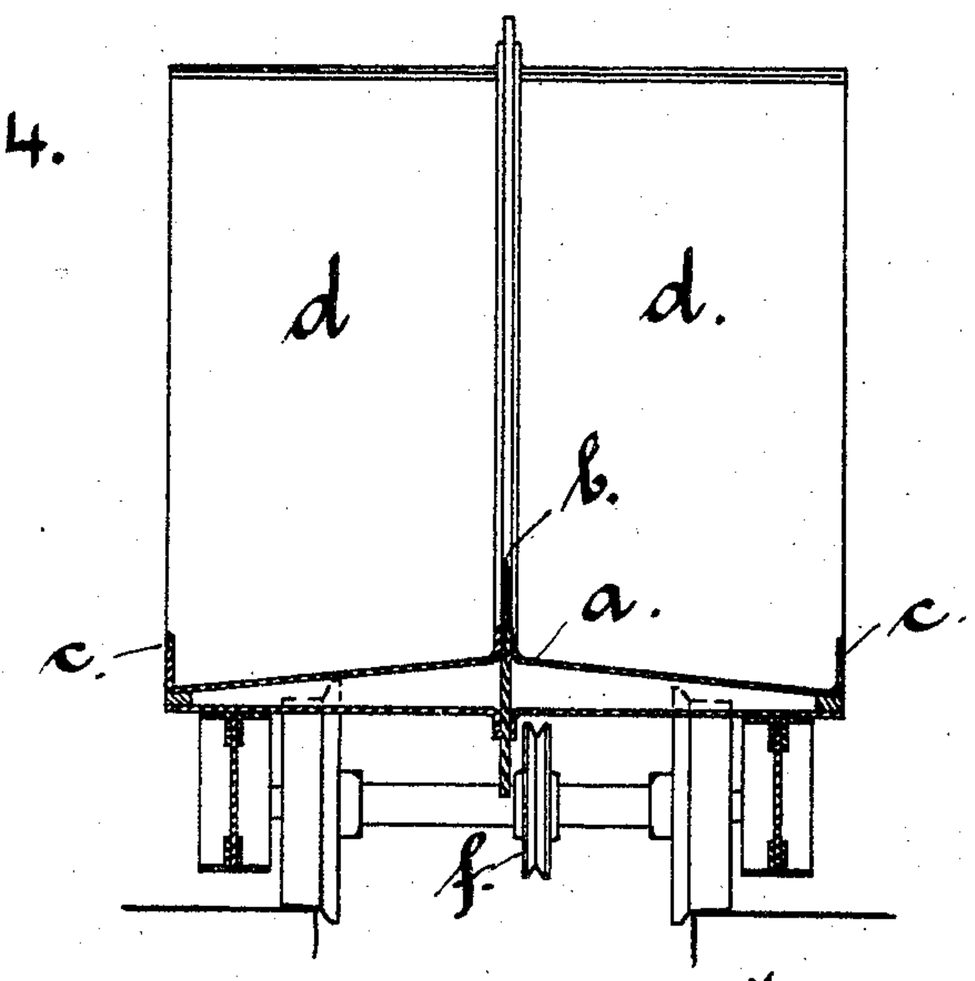



Fig. 4.




Witnesses:
Marg. Peters.
Alfred Bühring.

Inventor:
Carl Dietrich
by Erich Peters.
his attorney.

No. 785,204. Patented March 21, 1905.

# UNITED STATES PATENT OFFICE.

CARL DIETRICH, OF SCHÖNEBECK, GERMANY.

## SNOW-PLOW.

SPECIFICATION forming part of Letters Patent No. 785,204, dated March 21, 1905.

Application filed December 15, 1904. Serial No. 237,040.

*To all whom it may concern:*

Be it known that I, CARL DIETRICH, merchant, a subject of the King of Prussia, German Emperor, residing at Markt 6, Schönebeck, Elbe, Germany, have invented a new and useful Improvement in Snow-Plows, of which the following is a specification.

My invention refers to improvements in snow-plows.

It has the object of preventing the plow from sticking fast in the snow, of reducing to a minimum the power required to drive the plow through the snow, of doing away with the pressure of the snow from the sides on the plow, which causes derailment of the latter, and thus of enabling the plow to be used without the usual considerable ballast—that is, the weight of the plow itself can be reduced to a very great extent. I attain these results by the construction of a snow-plow as represented in the accompanying drawings, in which—

Figure 1 is a side view of the entire plow; Fig. 2, a view of the plow from above; Fig. 3, a longitudinal section near the middle; Fig. 4, a transverse section at line *x x*.

Similar letters refer to similar parts throughout.

Corresponding to the new method of operation the plow has a surface rising at a slight inclination of about twenty degrees *a*. This surface is as wide as the path from which the snow is to be removed. This surface, as shown in Fig. 4 in transverse section, has as suitable to the purpose a slightly roof-shaped form.

In the middle of the surface *a* projects along the entire length of the plow a knife-blade-like cutter *b*, which divides the mass of snow which is shoved up the inclined surface. Such cutters are also provided for the edges of the surface *a* along both sides. These, *c*, cut out from the snow through which the plow is driven a strip as wide as the surface *a* and at the same time prevent this snow taken up on the suface from being pushed off sidewise into the snow-banks standing at the sides of the plow. By this means the plow is moved in the snow with comparative ease.

The flat surfaces *a* rise straight or almost straight until they reach the height of what has been found to be the highest snow-fall. Then from this point the same are bent into plowshare-shaped side plates *d*. The snow which is shoved up along the straight surfaces *a* without moving toward the sides is now by means of the plates *d* thrown to the sides of the plow, and as it has been raised to the height of the fallen snow it falls on the surface of the snow lying on both sides of the plow.

For the removal of snow lying still higher, and which might possibly be raised over the upper edge of the plow, two shovel-wheels *e* are provided, which are set in rapid rotation by means of any desired mechanical power. In the drawings is shown by way of illustration, schematically, the working of the shovel-wheels by transmission from an axletree through rope-rolls *f g h i*. In order to aid the sliding of the snow on the surfaces *a*, a closed compartment underneath the same is constructed, in which steam, hot air, or some similar heating material is put. Thereby the particles of snow in immediate contact with the surfaces are melted, and the moisture therefrom allows the snow taken up by the plow to slide much more easily on the surfaces. The method of operation of the plow consists therein that it cuts out the snow in strips and lifts it up on its gradually-rising surface so high that it is finally by the plowshare-like plates thrown off onto the snow standing on both sides.

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

On a snow-plow a surface rising at an incline, knife-blade-like side rims on the same, plates bent like plowshares as upper continuation of said inclined surface, a knife-blade-like rib on the surface and continuing between the plowshare-like plates, a heated compartment under said surfaces, and shovel-wheels above the same, substantially as described and for the purpose set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

CARL DIETRICH.

Witnesses:

ERIK. PETERS,

JAMES BURRELL.