

(No Model.)

G. V. H. WHITBECK.
WHEELBARROW GRASS SEED SOWER.

No. 313,565.

Patented Mar. 10, 1885.

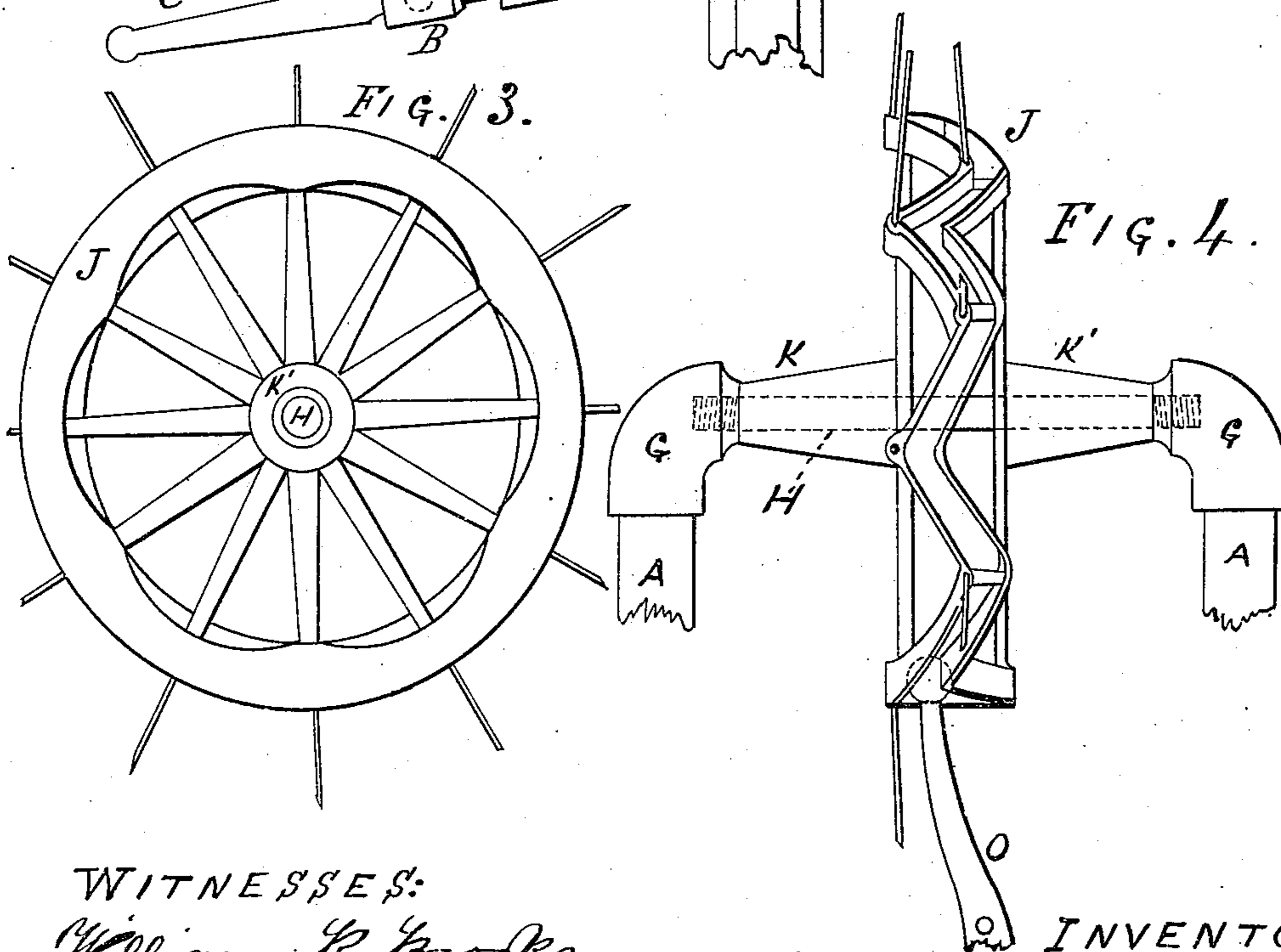
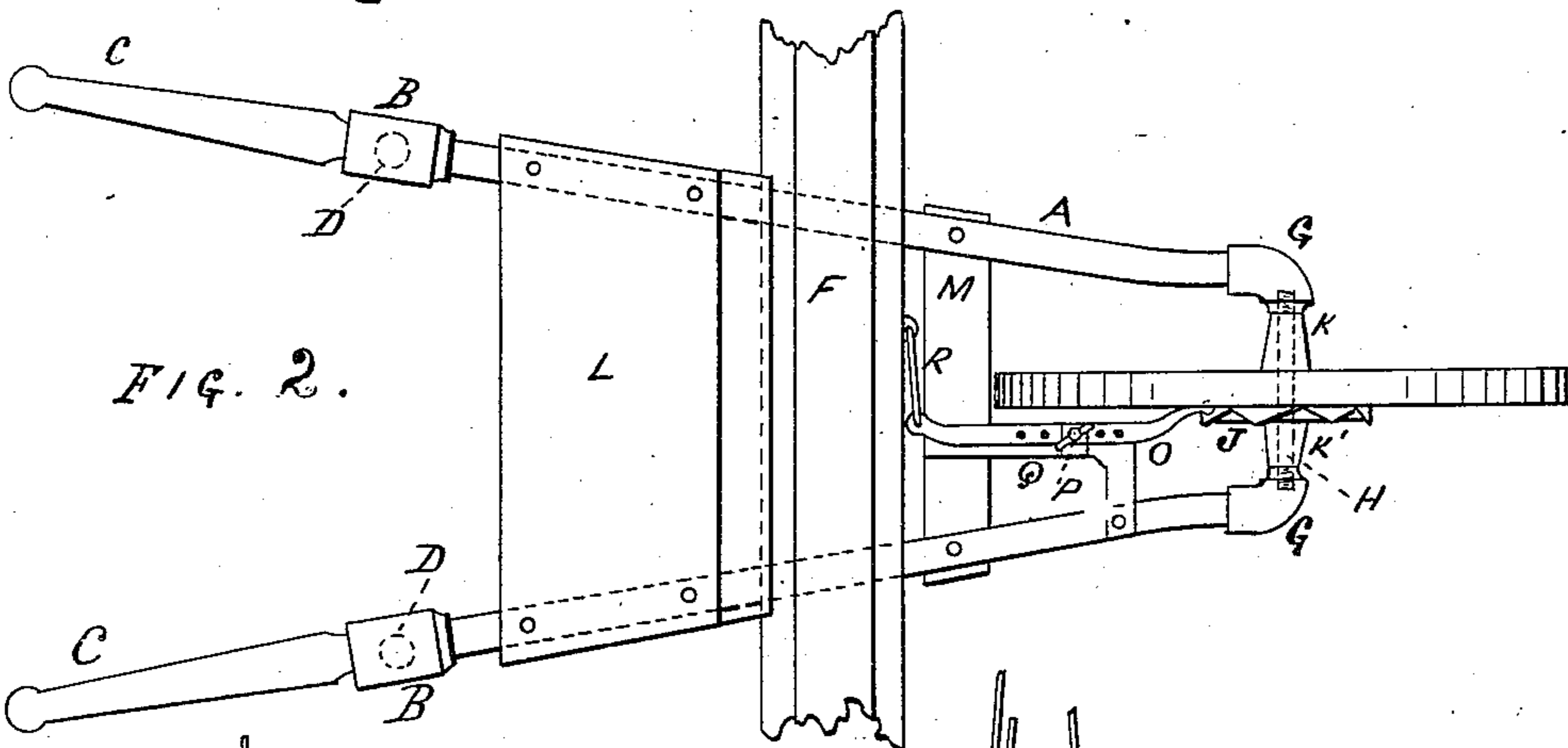
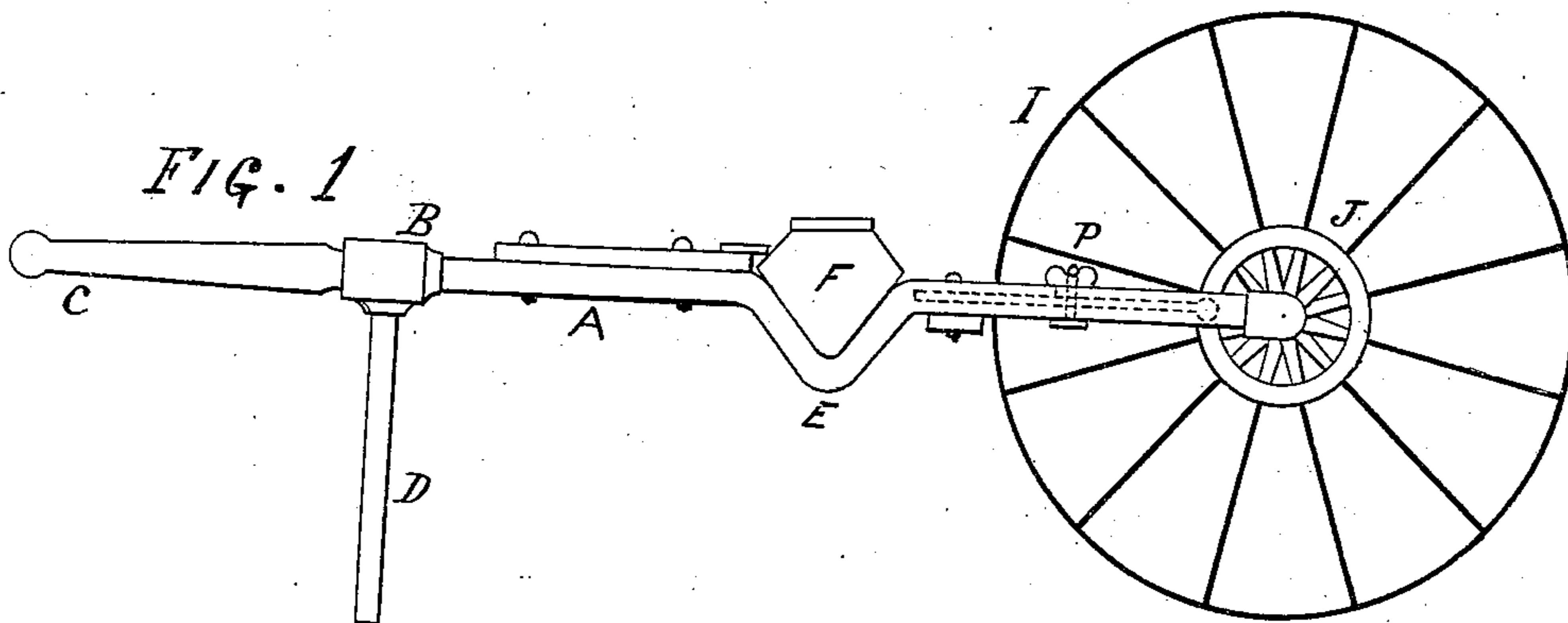
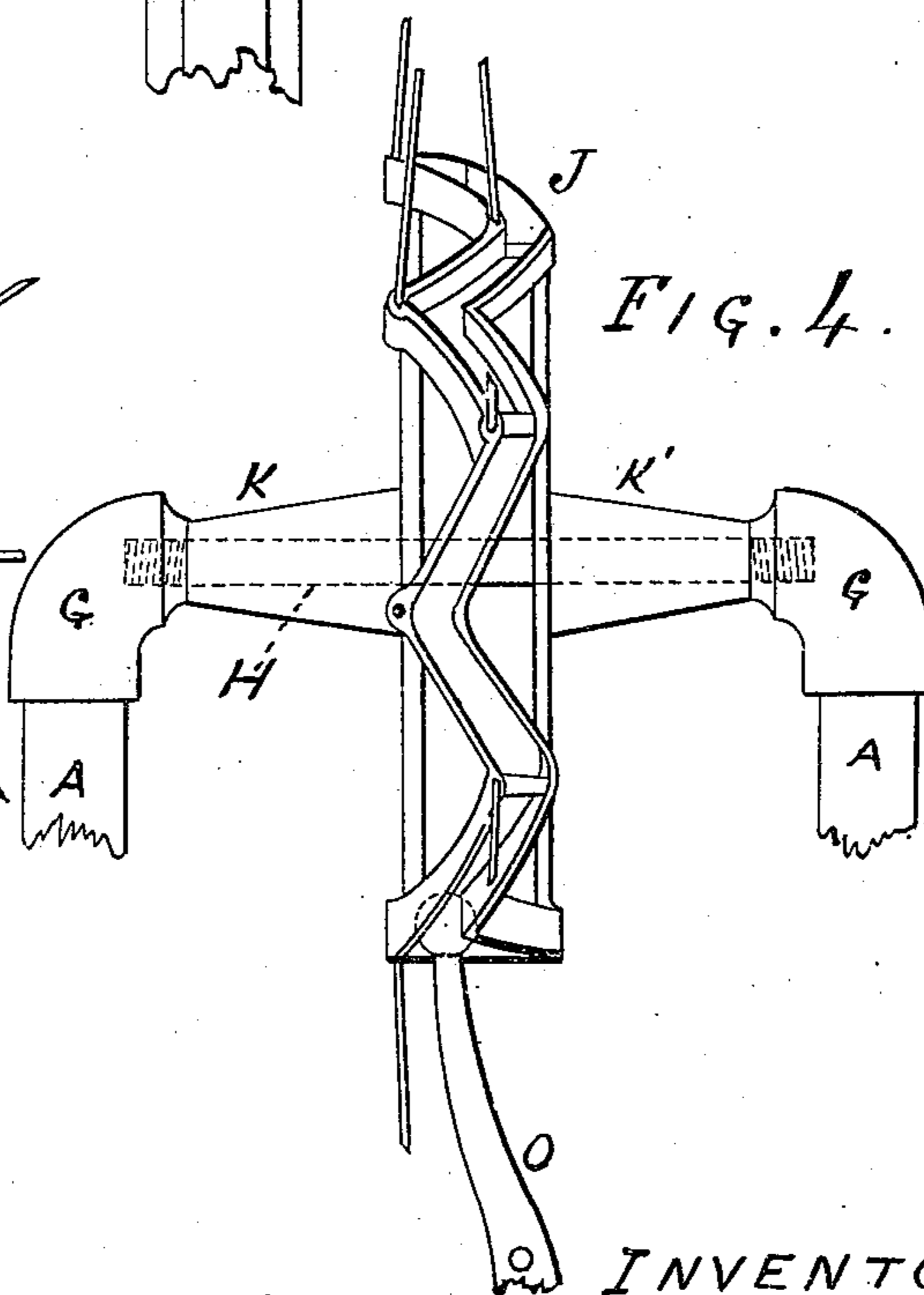


FIG. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE V. H. WHITBECK, OF PHELPS, NEW YORK.

WHEELBARROW GRASS-SEED SOWER.

SPECIFICATION forming part of Letters Patent No. 313,565, dated March 10, 1885.

Application filed July 25, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE V. H. WHITBECK, a citizen of the United States, residing at Phelps, in the county of Ontario and State of New York, have invented new and useful Improvements in Wheelbarrow Grass-Seed Sowers, of which the following is a specification.

The main objects of my invention are, first, to provide a frame which shall be stiff and rigid in its construction, which shall also be durable and hold the operating mechanism, even after long wear, in perfect adjustment, allowing compensation or "take up" for wear, and which shall at the same time be light and portable, also allowing the seed-box to be placed much nearer the ground and wheel than usual; second, a very light and strong skeleton double-hub cam-wheel to operate the distributor.

Referring to the drawings accompanying this specification, Figure 1 represents a side elevation of my invention; Fig. 2, a top view; Figs. 3 and 4, enlarged views of the cam-hubs and connections.

The same letters of reference refer to like parts in all the views.

A A is the frame of the machine, which I form of wrought-iron gas-pipe of suitable size. B B are reduced T-connectors, into the large rear ends of which are screwed the wooden handles CC, and into the reduced T's on the under side of the legs DD, also of gas-pipe. This construction permits the legs to be turned up into a horizontal position or unscrewed from the coupling, or the coupling with leg and handle attached can be unscrewed from the side bars for convenience in storage or shipping, as the case may be.

At E a V-shaped bend is made near to the wheel in the gas-pipe frame on both sides to receive the seed-box F, thereby bringing the latter nearer the ground and placing the weight thereof and its contents more upon the wheel. At the front of the machine are screwed the reduced elbows G G, into which is screwed, with a right-hand thread upon one end and a left-hand thread upon the other end, a piece of gas-pipe, H, serving the double purpose of rigidly holding the two sides of the frame together and forming an axle upon which the wheel I and its cam-hub J turn. It will be

seen by this construction that the front end of the frame is held in a very firm and rigid manner, and that by a slight turn of the axle the frame can be drawn together and all wear or slack between it and the heels of the wheel is easily taken up, also permits the axle to be unscrewed from the elbows and the wheel easily removed for convenience in storage or shipping. The cam is what I term a "double-skeleton hub-cam." It consists simply of the hubs K and K' on either side, (there being no metal between,) the six spokes connecting each hub (or twelve in all) to the two rims of the cam, the rims being united at every alternate spoke by short studs, thus combining in one casting the hub of the wheel and a double skeleton cam of exceeding lightness and strength. Radiating from the cam and cast therewith are the twelve wrought-iron spokes of the wheel, which at their outer ends are riveted to the wrought-iron rim of the wheel I. Operated by the cam is the shake-lever O, pivoted upon the thumb-bolt P, which passes through it and the supporting-bracket Q, which is fastened to the side frame and cross-piece M. The rear end of the shake-lever is connected by a short hook, R, to the seed-distributor, to which is imparted thereby a rapid backward and forward motion. The length of stroke imparted to the distributor, and consequently the amount of seed sown to the acre, is regulated by changing the fulcrum thumb-bolt P into a series of holes in the shake-lever O and bracket Q. On the front end of the shake-lever, which engages with the cam, I place a small friction-roller of hard metal, either chilled iron or steel. It will be seen that this construction gives a very direct, short, and positive connection by means of the shake-lever between the operating hub-cam and the seed-distributor, by which slack or lost motion is obviated.

I am aware that wrought-iron gas-pipe has been used for the frame-work of agricultural implements before, the use of which, broadly, therefore, I do not claim.

I am also aware that cams have been used upon the running-wheels of grass-seed sowers and other implements for the purpose of operating the distributor; but these have hitherto been fastened to the wheel to a greater or less extent by bolts, screws, or rivets, and

hence liable to become loose or detached, and therefore inoperative in a short time. In my invention the hub and cam is one single casting, and these difficulties are entirely obviated.

5 It is also a double cam placed on one side only of the wheel. The use of the V-shaped depressions in the side bars, A A, is not merely to bring the seed-box nearer the ground, (for I am aware that in some implements it is

10 brought much nearer, although in a different manner,) but more particularly to provide a new, rigid, and substantial holder for the seed-box, corresponding in form thereto and holding it in position without the necessity of

15 fastenings by bolts, screws, or otherwise, which are required when the box is placed upon the top of the frame, as in the old method. The V-shaped depressions also permit the box to be brought down into the body

20 of the frame, relieving the machine of top-

heaviness, which defect exists in machines where the box is placed upon the top of the frame.

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

In a wheelbarrow grass-seed sower, the double skeleton cam-hub J K K', made in one single casting placed on one side of the wheel, with which also the spokes of the wheel I are cast, forming a stiff and durable wheel, upon which the machine runs, and by which said double skeleton cam the shake-lever O is operated, all in combination with the axle H, elbow-connectors G G, and side bars, A A, substantially as described.

GEORGE V. H. WHITBECK.

Witnesses:

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