(No Model.) 4 Sheets—Sheet 1.

G. NORSËNG.

POTATO DIGGER.

No. 282,917. Patented Aug. 7, 1883.

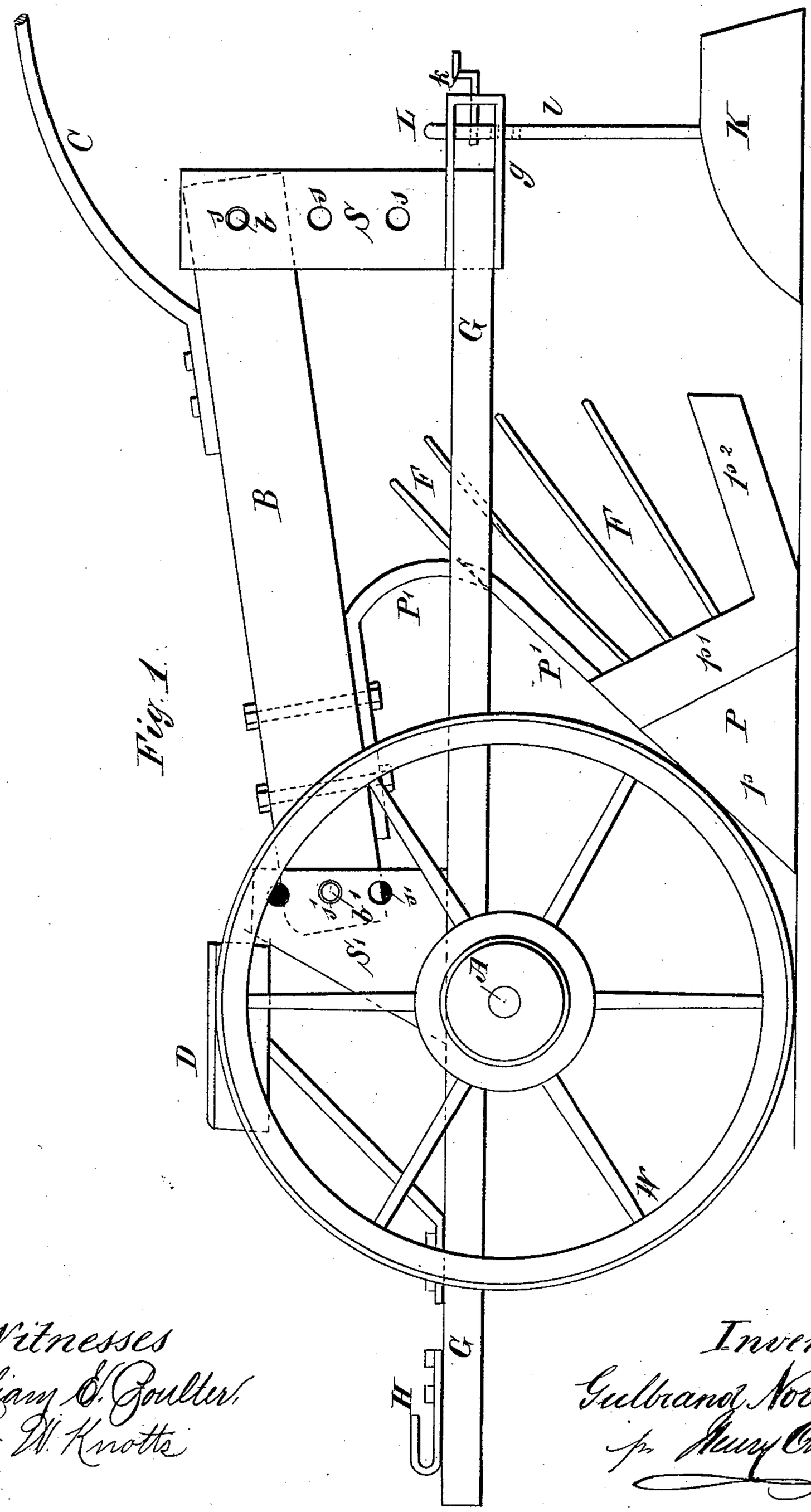


Fig. 1.

Witnesses
William E. Coulter.
Geo. W. Knotts

Inventor
Gulbrand Norseng
per Henry Orth
Atty

(No Model.)

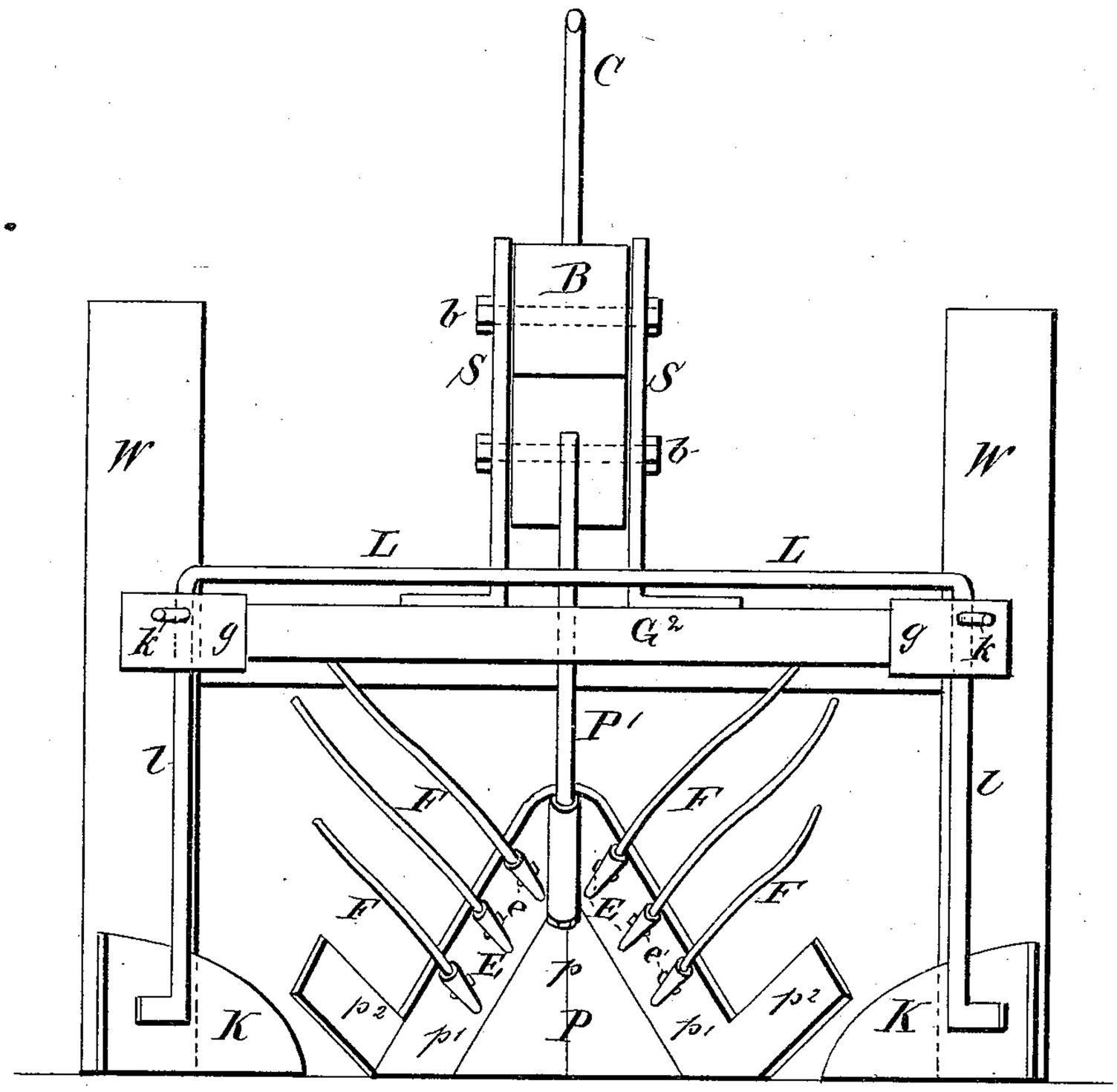
4 Sheets—Sheet 2.

G. NORSËNG.

POTATO DIGGER.

No. 282,917. Patented Aug. 7, 1883.

Fig. 2



Witnesses
William E. Coulter.
F. W. Knotts

Inventor
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att'y.

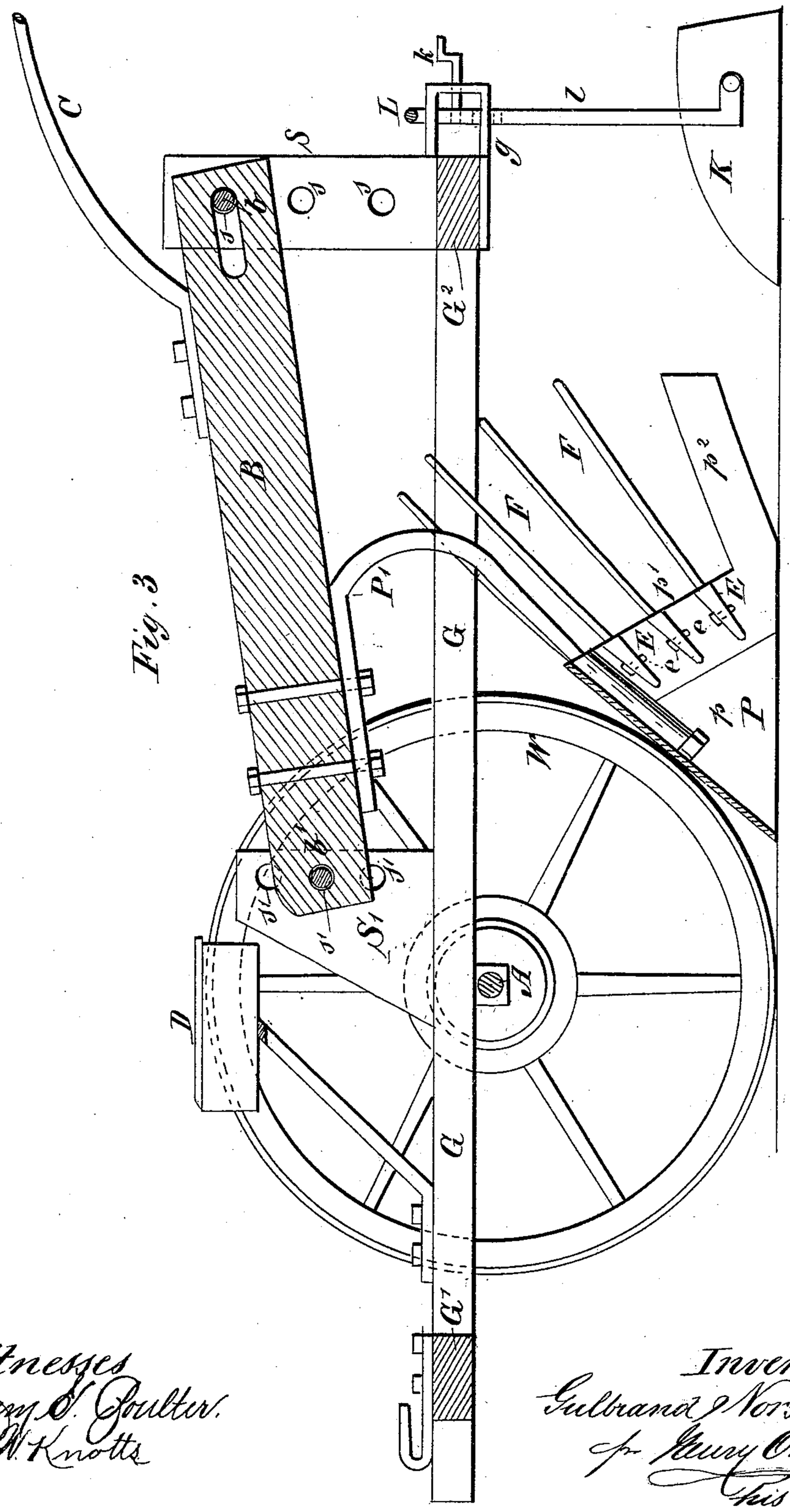
(No Model.)

4 Sheets—Sheet 3.

G. NORSENG.

POTATO DIGGER.

No. 282,917. Patented Aug. 7, 1883.



Witnesses
William L. Soulter.
Geo. W. Knotts.

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(No Model.)

4 Sheets—Sheet 4.

G. NORSENG.

POTATO DIGGER.

No. 282,917. Patented Aug. 7, 1883.

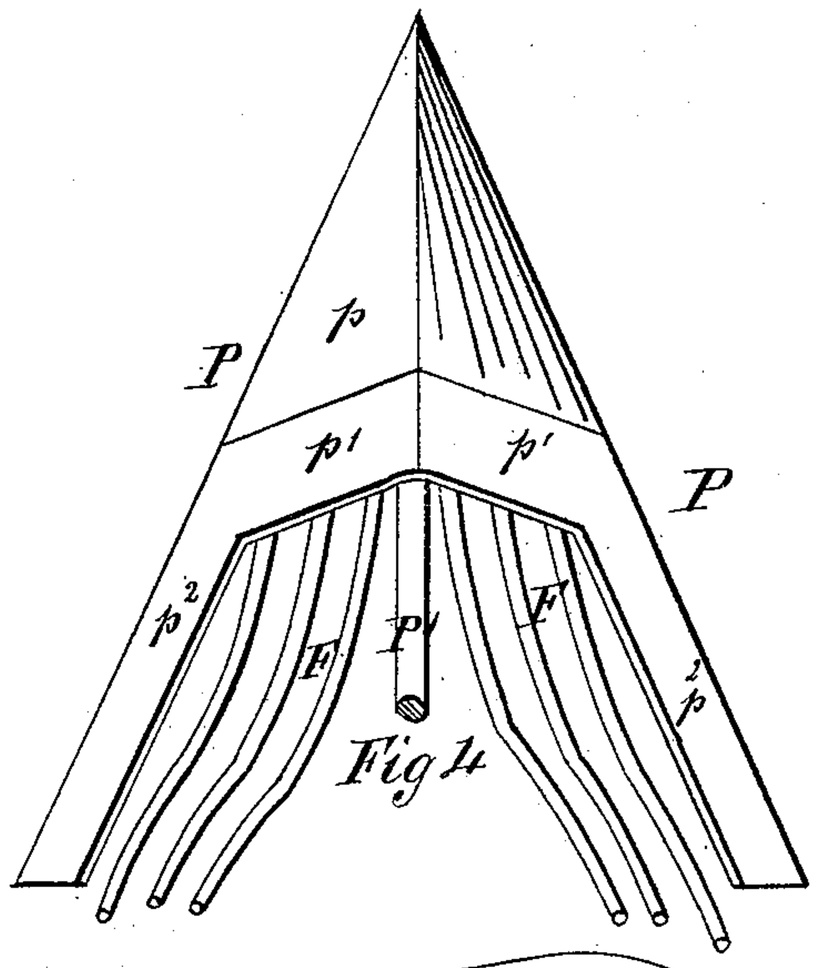

Fig 4

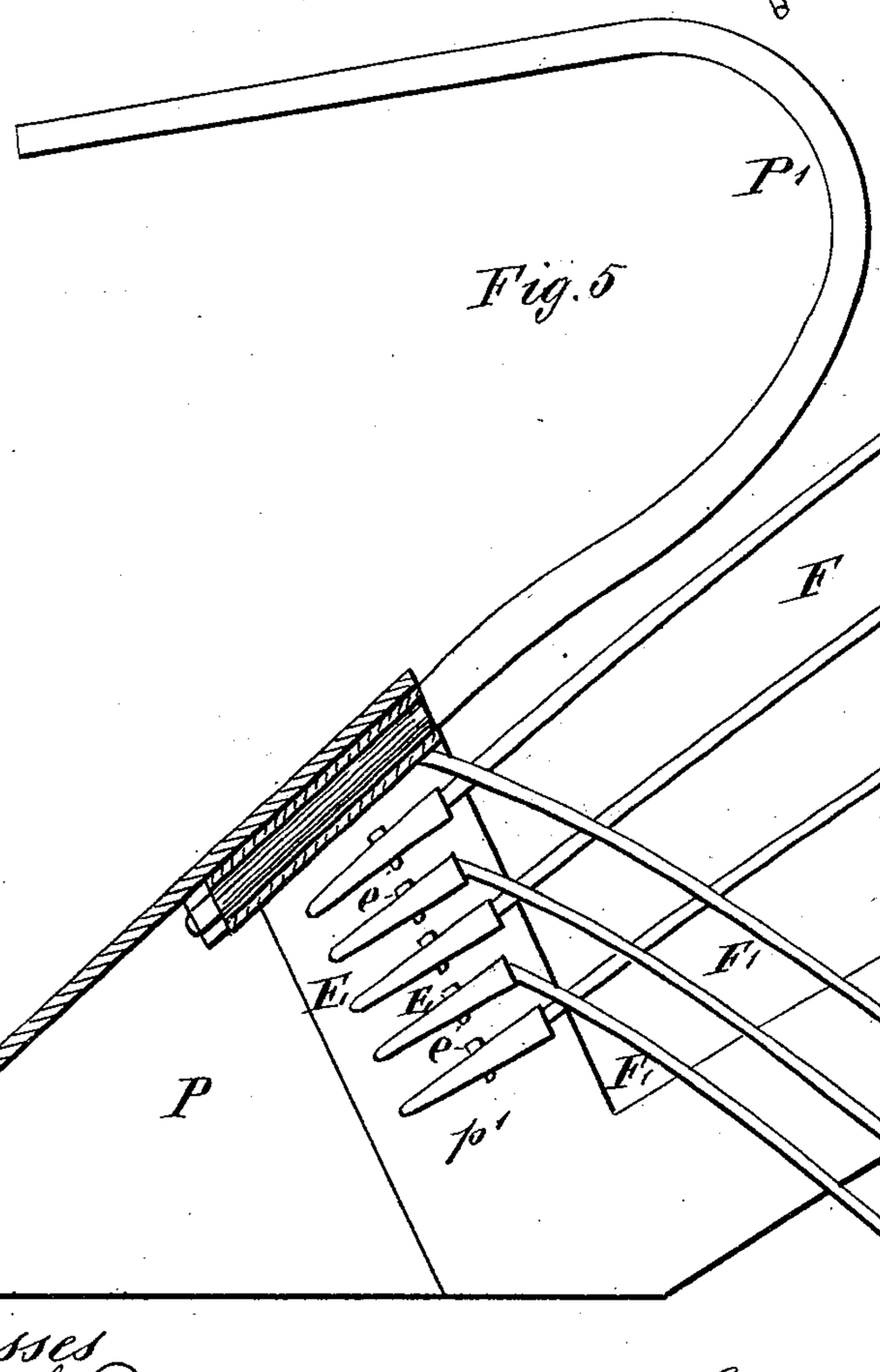

Fig. 5

Witnesses
William E. Boulter.
Geo. H. Knotts.

Inventor
Gulbrand Norseng
per Henry Orth
his att'y.

UNITED STATES PATENT OFFICE.

GULBRAND NORSËNG, OF HAMAR, NORWAY.

POTATO-DIGGER.

SPECIFICATION forming part of Letters Patent No. 282,917, dated August 7, 1883.

Application filed February 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, GULBRAND NORSËNG, a subject of the King of Norway, and a resident of Hamar, in Norway, have invented certain new and useful Improvements in Agricultural Implements for Digging Potatoes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in potato-diggers; and it consists in the construction and combination of parts, substantially as hereinafter more fully described, and as shown in the accompanying drawings, in which—

Figure 1 is a side elevation, Fig. 2 a rear elevation, and Fig. 3 a longitudinal vertical section, of a potato-digging machine constructed according to my invention. Fig. 4 is a top plan view of the digger or plow, and Fig. 5 is a longitudinal vertical section of the digger or plow on an enlarged scale.

Like letters of reference indicate like parts in the above figures of drawings.

The carrying-frame of the machine is composed of two longitudinal girts, G G, connected at their forward and rear ends by means of cross-girts G′ G², respectively. The longitudinal girts are each provided with suitable bearings for the axle A, upon which the carrying-wheels W are mounted. Centrally upon the front cross-girt, G′, is bolted the draft bar or hook H, and upon the rear cross-girt, G², are secured two standards, S S, having a series of holes, *s s s*, for the reception of a bolt, *b*, by means of which the rear end of the plow-beam B is secured and adapted for vertical adjustment. The front end of the beam B is also adjustably secured between standards S′, formed on or secured to the longitudinal girts by means of a bolt, *b′*, the standards being provided with a number of holes, *s′*, corresponding with the number of holes *s* in standard S, whereby the plow may be set to the required depth. The plow-beam is preferably provided with handles C, so as to adapt the machine as a walking or riding machine, a seat, D, for the driver being secured to the longitudinal girts G in front of the standards S′.

To the beam B is bolted the potato digger or plow P by means of the bent standard P′, as shown, and said digger or plow is composed of a triangular body, *p*, to which is connected, or on which is formed, a correspondingly-shaped strip or ledge, *p′*, having laterally and upwardly extending blades or wings p^2, as shown. On the inside of the ledge *p′* are secured or formed a number of tapering sockets, E, for the reception of a series of bars, F, that form a cradle, said bars or arms being secured in their sockets E by means of screw-bolts *e*, or pins, so as to adapt them for ready removal, whenever such becomes necessary from any cause, and replacement by others.

As shown in Figs. 1 to 3, the cradle is formed by a series of bars, F, extending rearwardly and upwardly from the ledge *p′*. These bars may, however, be curved at their outer extremities, as shown in Fig. 4, or they may be arranged as shown in Fig. 5. In practice I prefer the latter arrangement—that is to say, by bending each alternate bar F′ so as to extend laterally inside of the wings or mold-boards p^2, and across the intermediate bars, as shown, thus forming a reticulated cradle that will more effectually prevent any weeds or tops carried with the potatoes along the sides of the digger from passing with the latter between the bars into the furrow. Those potatoes that are not carried up and conveyed through the bars F into the furrow, or that cannot pass between the bars and fall back, are pushed aside by the wings p^2 of the digger, to be carried into the furrow by the shovels or scrapers K. These shovels or scrapers K are secured to the vertical arms *l* of a shaft, L, adjustably held in brackets *g*, secured to the longitudinal girts G by means of screw-bolts or crank-pins *k*, said vertical arms being provided with a series of holes. (Shown in dotted lines.) The shovels or scrapers K are set at the proper angle to the furrow, so as to gather up and carry those potatoes toward such furrow that did not pass through the cradle F.

The machine may of course be made of any suitable dimensions. I have, however, found that when made about four feet long and two feet wide between the wheels excellent results are obtained, and the machine may be operated with comparatively little power.

The body *p* of the plow is preferably made of

wrought-iron, the ledge p', with its sockets E and wings p^2, of cast-iron, and the cradle-bars F of steel.

Having thus described my invention, what I claim is—

1. In a potato-digger, the plow P, having the ledge p' and wings p^2, said ledge being provided with sockets E, and the removable cradle-bars F F′, fitted and secured within said sockets, in combination with the vertically-adjustable scrapers K K, substantially as described, for the purposes set forth.

2. The combination, in a potato-digger, of a wheeled frame having standards S S′, a plow-beam adjustable vertically and at both ends upon said standards, the plow P, constructed substantially as shown and described, and secured to said beam B, and the vertically-adjustable shovels or scrapers K K, all constructed and arranged for operation as shown and described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

GULBRAND NORSËNG.

Witnesses:

T. GULLICHSEN,

T. P. ALERSUN.