

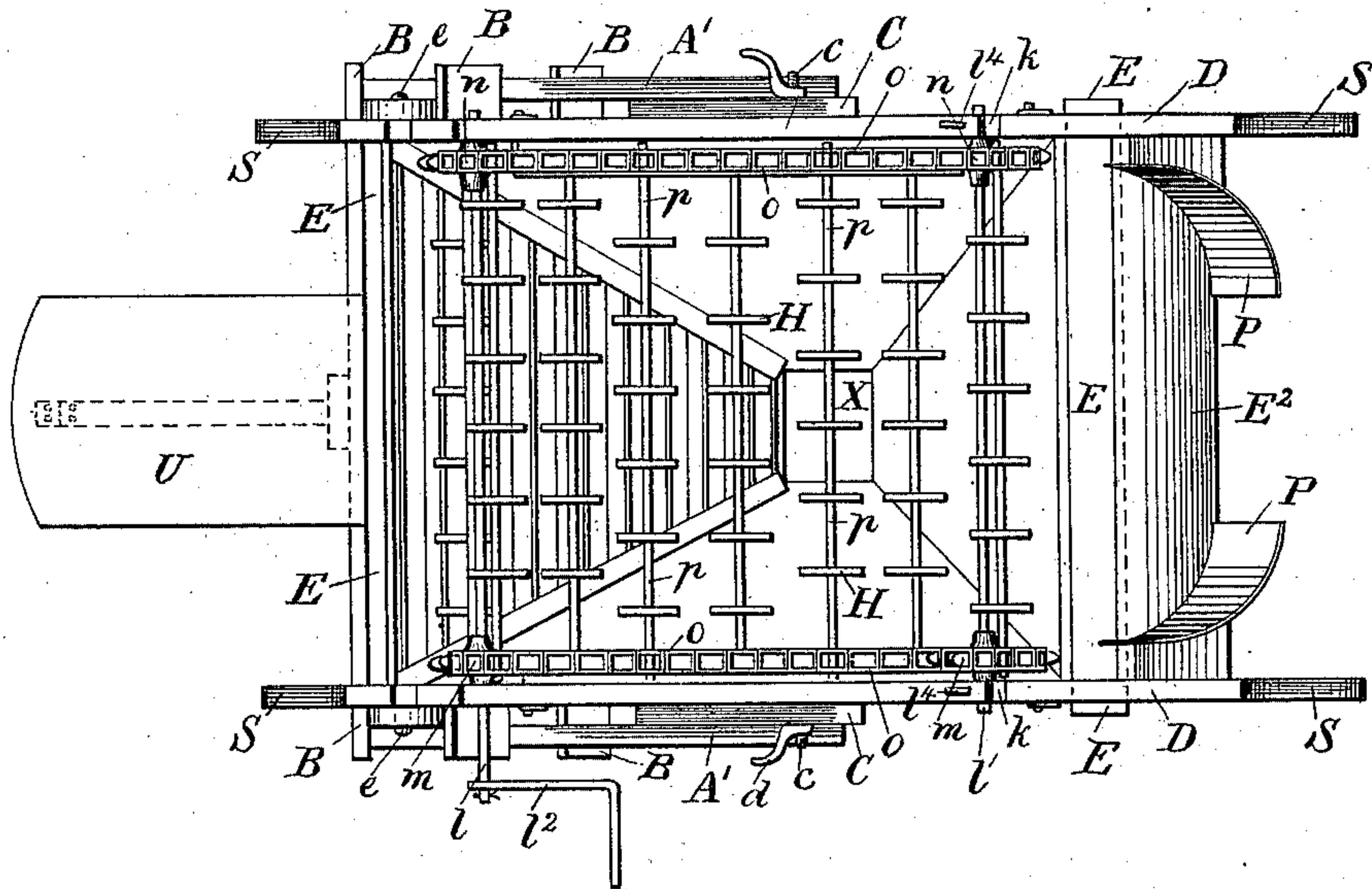
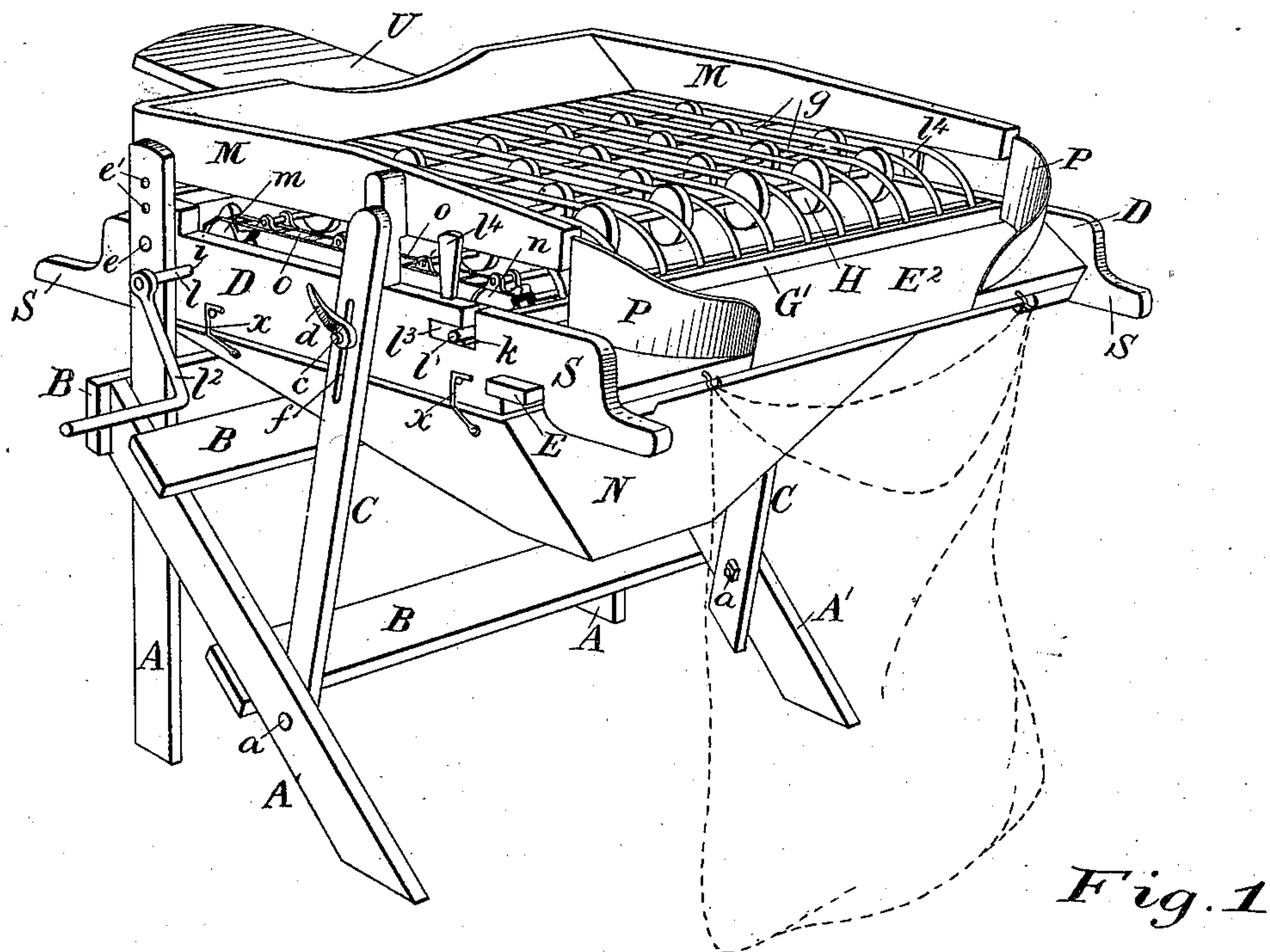
(No Model.)

2 Sheets—Sheet 1.

H. D. HERRINGTON.
POTATO SORTER OR GRADER.

No. 385,114.

Patented June 26, 1888.



WITNESSES =

Walter W. Lovegrove.
D. Quibbe.

Fig. 2

INVENTOR =

Henry D. Herrington,
by Hissdill Parsons,
atty.

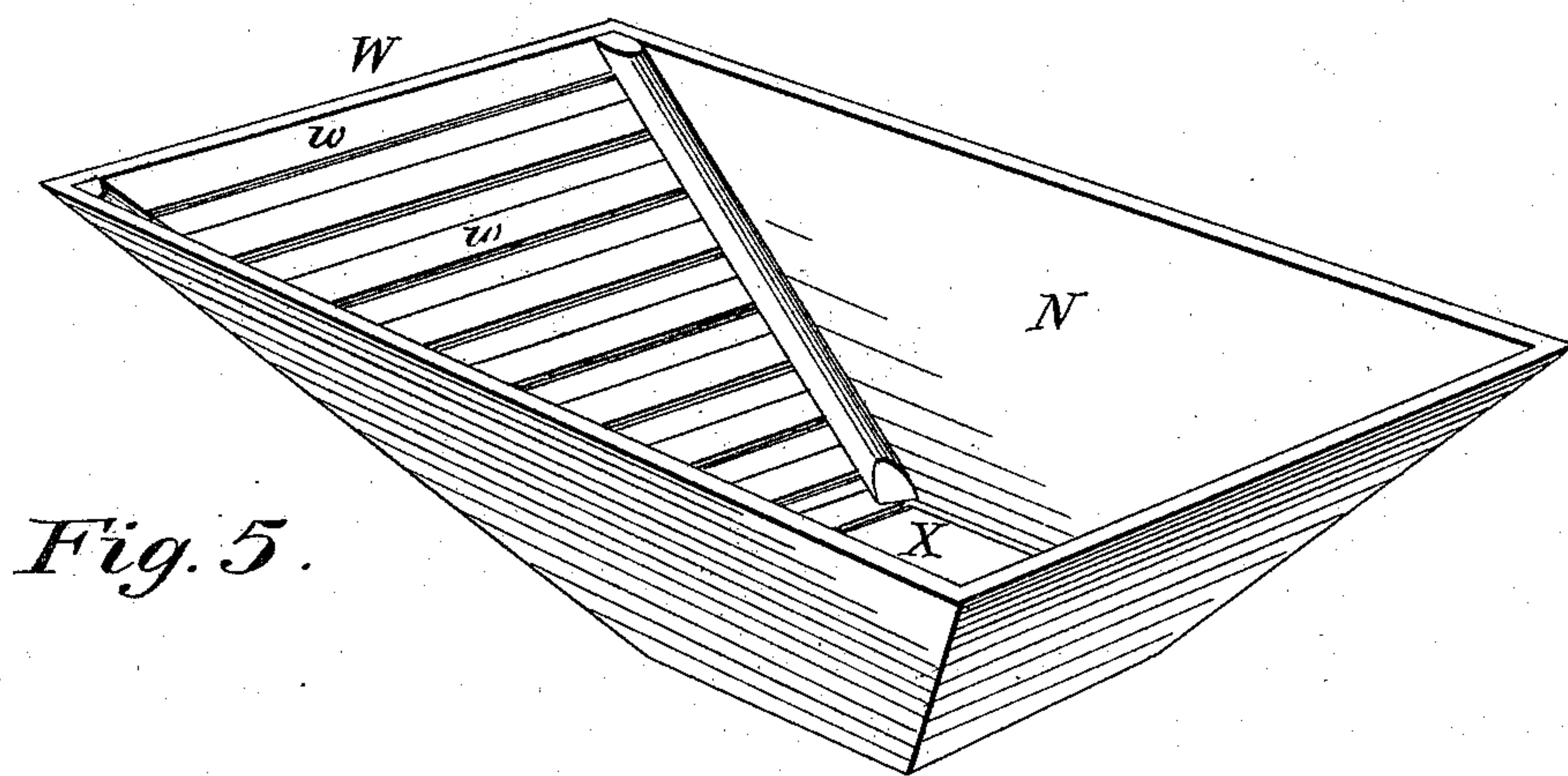
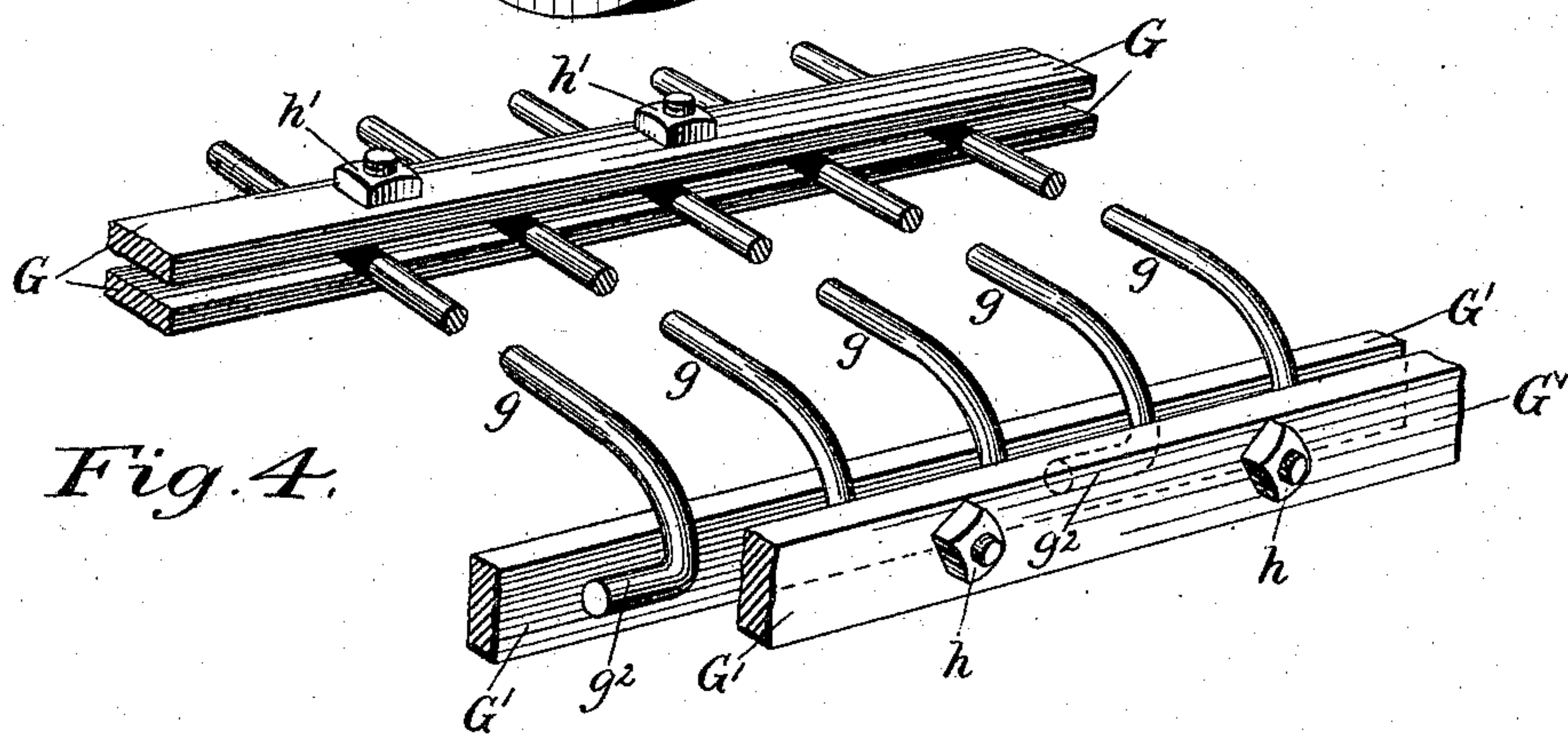
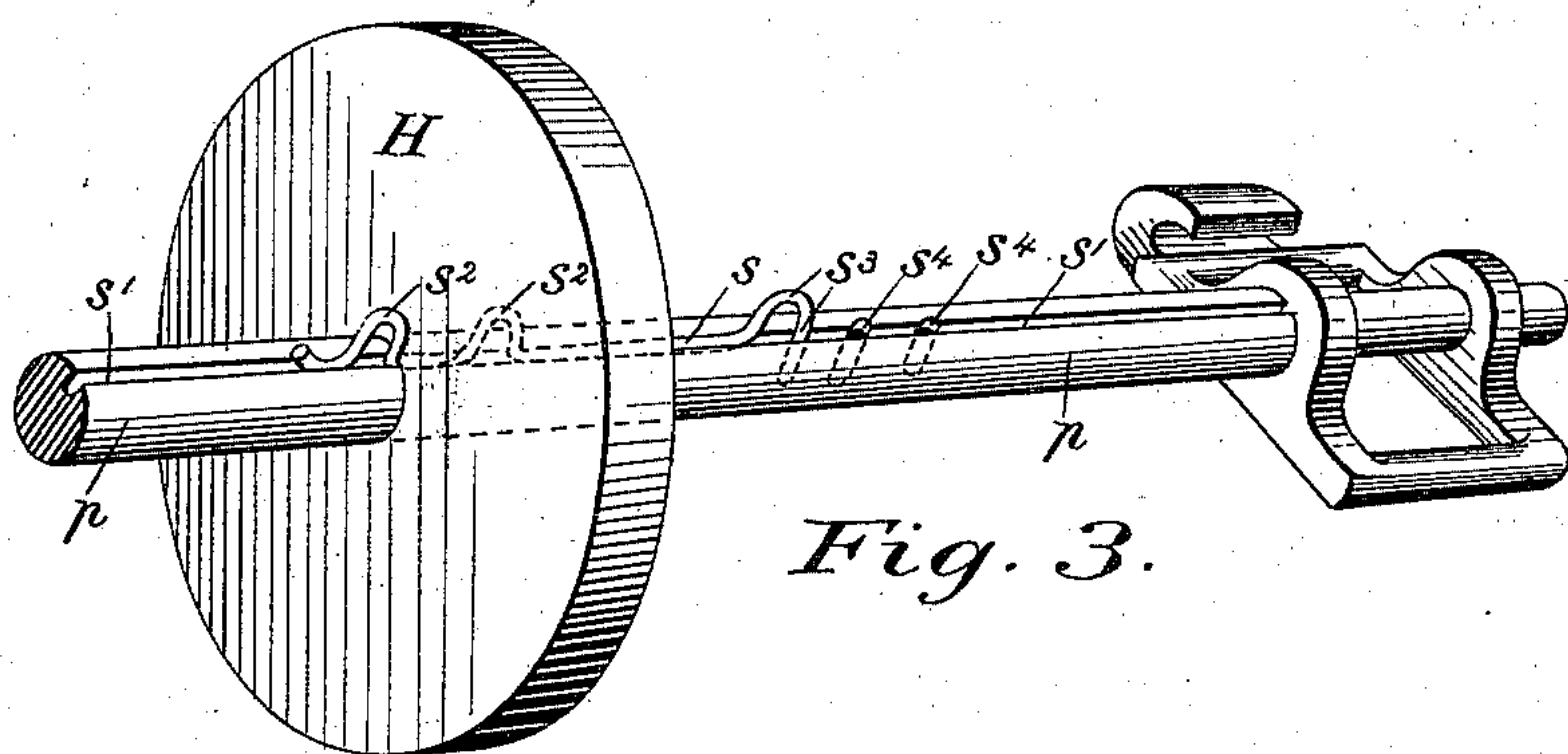
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Henry D. Herrington.
by Hindell Paxson.
Attorney.

UNITED STATES PATENT OFFICE.

HENRY DAVID HERRINGTON, OF TIASHOKE, NEW YORK.

POTATO SORTER OR GRADER.

SPECIFICATION forming part of Letters Patent No. 385,114, dated June 26, 1888.

Application filed June 25, 1887. Serial No. 242,427. (No model.)

To all whom it may concern:

Be it known that I, HENRY DAVID HERRINGTON, a citizen of the United States, residing at Tiashoke, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Potato Sorters or Graders, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to machines for cleaning, sorting, and grading potatoes; and it consists in certain details of construction and combination of parts, as more fully hereinafter set forth.

In the drawings, Figure 1 is a perspective view; and Fig. 2, a plan view, the grate-bars in the latter figure being removed. Fig. 3 is a perspective of one of the rods to which the rollers are secured, showing the attachment of the rod to the sprocket-chain and of the rollers to the rod. Fig. 4 is a perspective of the grating, and Fig. 5 of the hopper.

Similar letters of reference in all the figures designate like parts.

The frame-work of the machine consists of the upright pieces A A, inclined pieces A' A', and braces B B, rigidly secured together in any suitable way. To the inclined pieces A' A' are pivoted at *a a* the bars C C, the upper ends of which are provided with the longitudinal slots *f f*, through which project the bolts *c c*, having hand-screws *d d*. The bolts *c c* are secured to the frame D D, which is pivoted to the uprights A A at *e e*. By this construction the inclination of the frame D, carrying the grate and the rollers, can be regulated. The uprights A A are also further provided with the holes *e'*, in order that the height of the frame D D may be regulated. The frame consists of the two longitudinal pieces D D and the cross-pieces E E. In suitable notches in the longitudinal pieces D D rest the bars G G'. The grate-bars *g g* are clamped between the bars G at the upper and the bars G' at their lower ends by bolts *h h'*. The grate-bars *g g* are curvilinear in form at their lower ends and have the portion *g²* parallel with the face of the bars G' G'. This portion increases the clamping-surface upon the

bars *g g*. By loosening the nuts *h h'* the grate-bars may be moved laterally to any desirable distance from each other, and, the nuts *h h'* being again screwed tightly, the bars *g g* are held in such position.

The side pieces, D D, have bearings *i i k k* for the shafts *l l'*, which carry the sprocket-wheels *m m n n*, over which run the chains *o o*, to which at suitable distance are secured, as shown at Fig. 2, the bars or rods *p p*, carrying the rollers H H. The shaft *l* has attached thereto the crank *l²*, by which motion is communicated to the sprocket-wheels. The shaft *l'* has its bearings in slots in the movable blocks *l³*, against which bear the wedges *l⁴*, by driving down on which the distance of the blocks *l³* from the bearing *l* may be increased and the sprocket-chains tightened.

The rollers H H are secured to the rods *p p* by the spring-wires *s*, of the form shown in Fig. 3, partly in dotted lines. The wire *s* fits in the groove *s'* of the bars *p*, and has the upright portion *s² s²*, between which the roller is secured from endwise movement, but is permitted to revolve on the bar. The spring-wire is secured against endwise movement by the portion *s³* fitting into a series of holes, *s⁴*. When it is desired to adjust the roller on the rod, it is necessary to pull the part *s³* from the hole *s'* and insert it in one of the succeeding holes. The rollers on any one rod project through every other one of the interstices between the grate-bars, and the rollers on any two succeeding bars are alternately placed as regards the interstices between the grate-bars, in order that the potatoes which do not fall through the grate-bars may be surely moved forward.

M is a guard resting upon the frame D, and serves to hold the potatoes upon the grate.

W is the hopper, one incline of which, being that upon which the smaller potatoes fall, is formed of the slats *w*, placed at suitable distances apart to allow the dirt to fall through. The hopper is secured in, under, and to the frame D by the catches *x*.

P P are curved guides at the lower end of the frame D D, to guide the potatoes into a sack or other receptacle.

S S are handles formed on the side pieces,

D D, for convenience in either moving the machine or changing the inclination of the frame D D.

U is a support upon which the basket containing the potatoes to be sorted rests.

In adjusting the grate-bars and the rollers it will be found more convenient to commence from the center-bar, leaving the latter stationary.

10 The operation of my machine is as follows: The potatoes to be sorted are placed upon the grate, and the crank l^2 being turned the rollers are moved forward, pushing the potatoes which are too large to fall through the grate over the
15 incline E^2 . The dirt and smaller potatoes falling upon the slatted incline of the hopper, the smaller potatoes pass through the opening X, the dirt sifting through between the slats w .

Having now described my invention, what I
20 claim as new, and desire to secure by Letters Patent, is—

1. In a potato-sorter, the combination of a grating composed of a series of parallel bars, endless chains running beneath the grating, a
25 series of rods carried thereby transverse to the grate-bars, and the rollers carried on the transverse rods and projecting above the grate-bars, the rollers on any two successive transverse

rods being alternately placed as regards the interstices between the grate-bars, substantially as and for the purpose described. 30

2. In a potato-sorter, the combination of a grating composed of a series of parallel rods laterally adjustable, endless chains running beneath the grating, the rods carried by said
35 chains, and a series of laterally-adjustable rollers secured thereon and projecting above the grating, substantially as and for the purpose described.

3. In a potato-sorter, the combination of a
40 grating formed of a series of parallel bars, the endless chains running beneath the grating, the transverse rods carried by said chain, and the rollers mounted on the transverse rods and capable of revolution thereon, sub-
45 stantially as and for the purpose specified.

4. The combination, with the rod p , having groove s' and holes s^4 , of the spring-wire s and the roller H, substantially as described.

In witness whereof I have hereunto set my
50 hand this 9th day of June, 1887.

HENRY DAVID HERRINGTON.

Witnesses:

I. W. HERRINGTON,
WM. HAGERTY.