

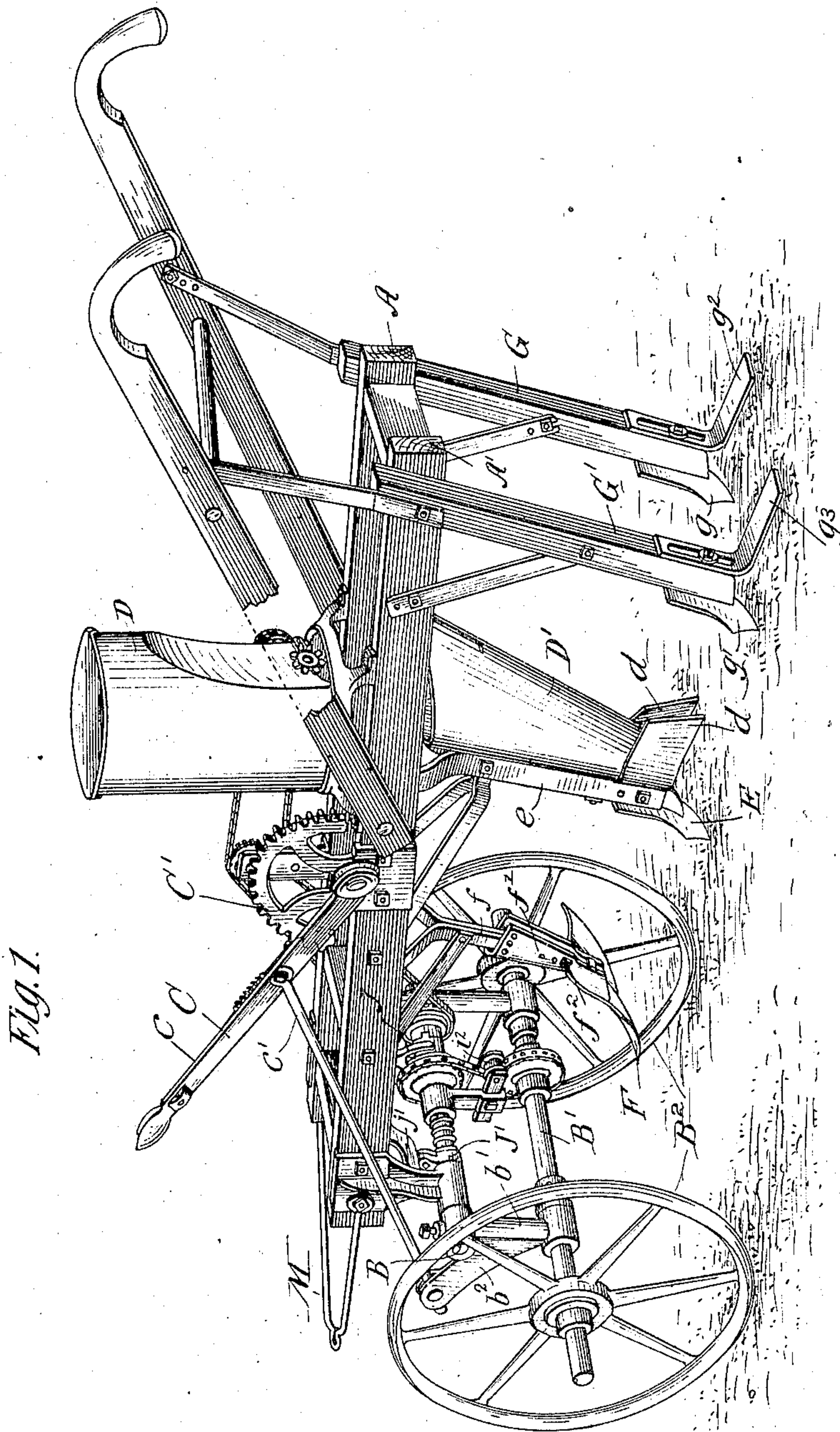
No. 755,613.

PATENTED MAR. 29, 1904.

W. L. CASADAY.
SEEDER AND PLANTER.
APPLICATION FILED JAN. 26, 1903.

NO MODEL.

3 SHEETS—SHEET 1.



Witnesses:
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3 SHEETS—SHEET 2.

Fig. 2

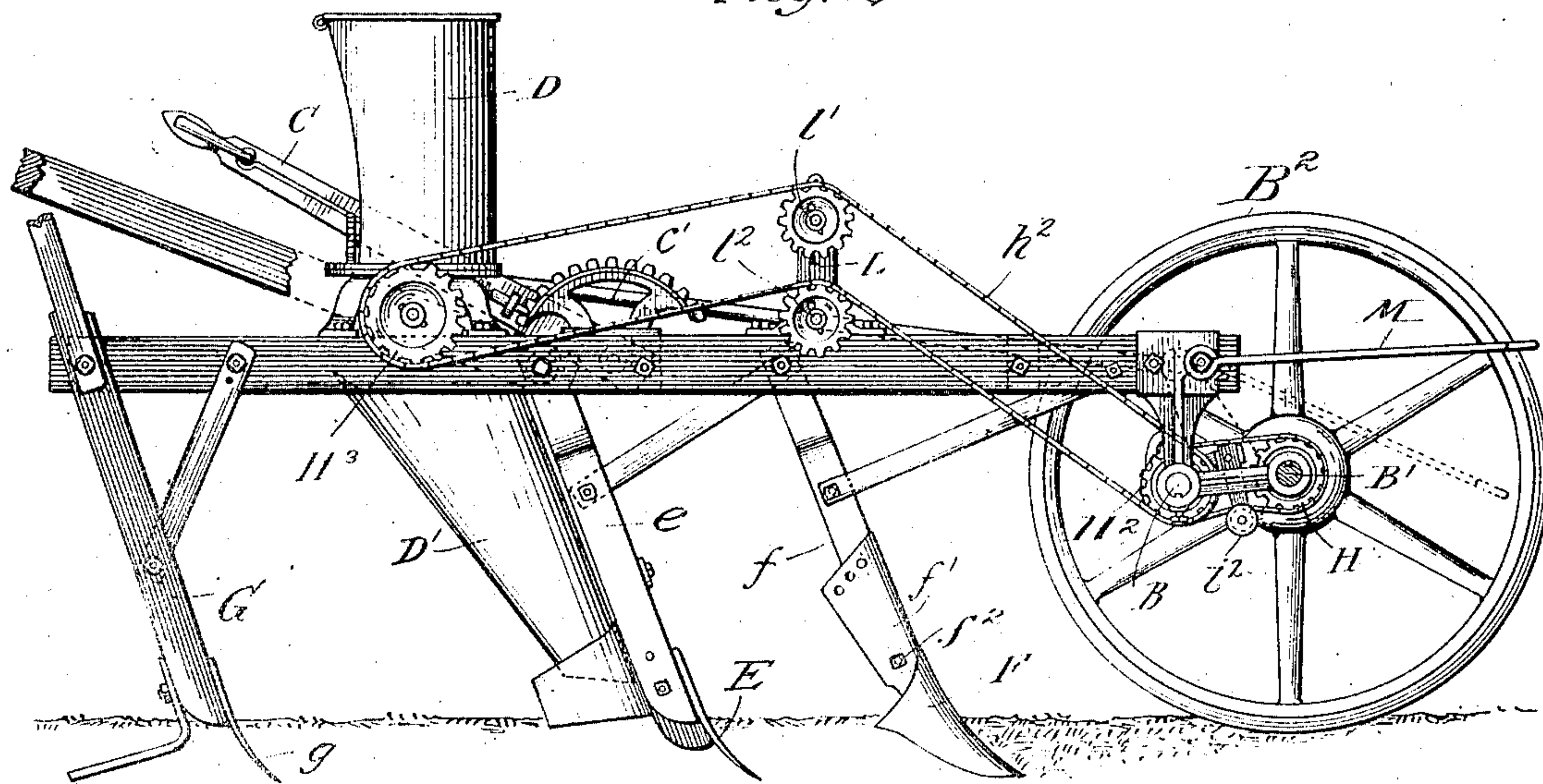


Fig. 3.

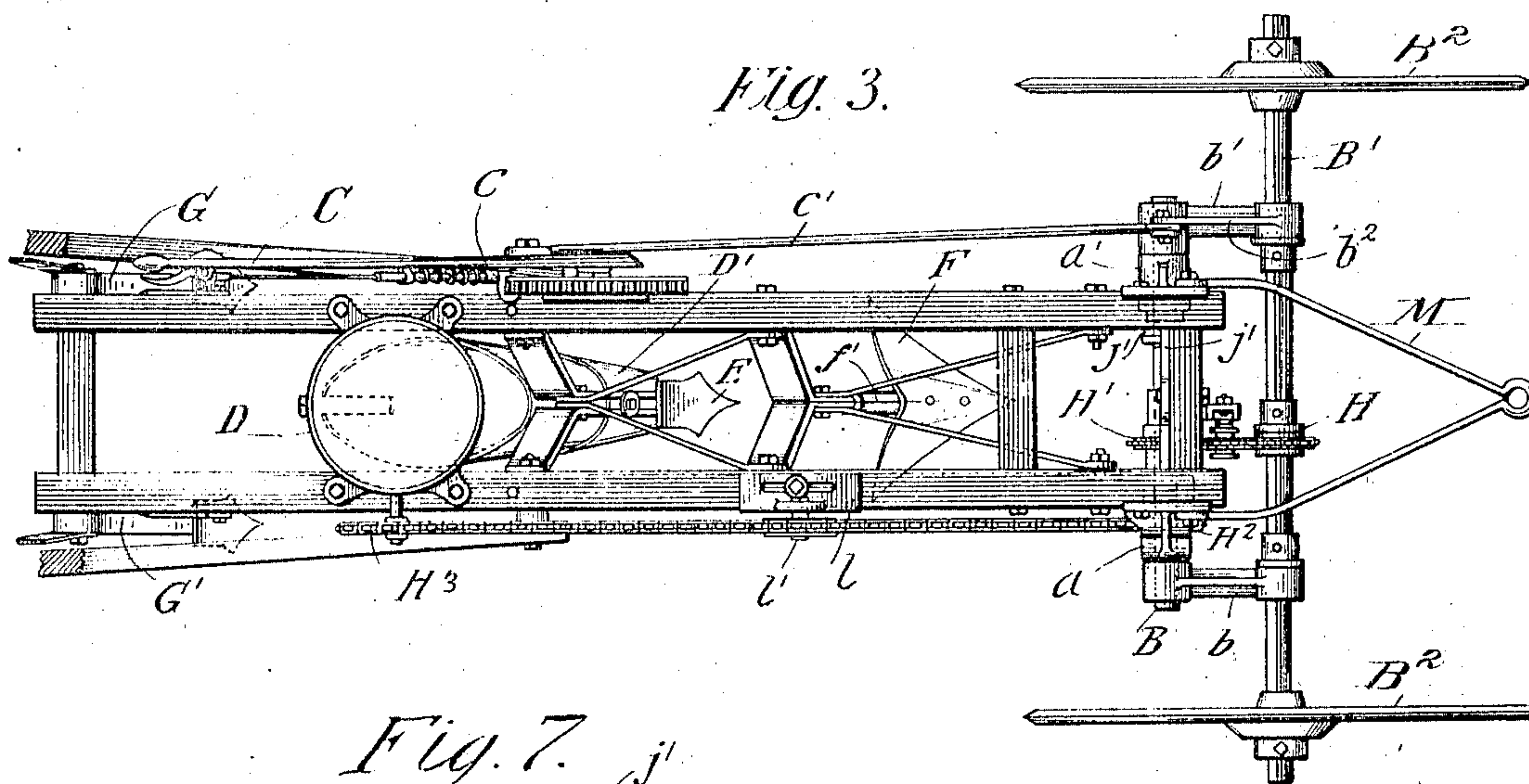
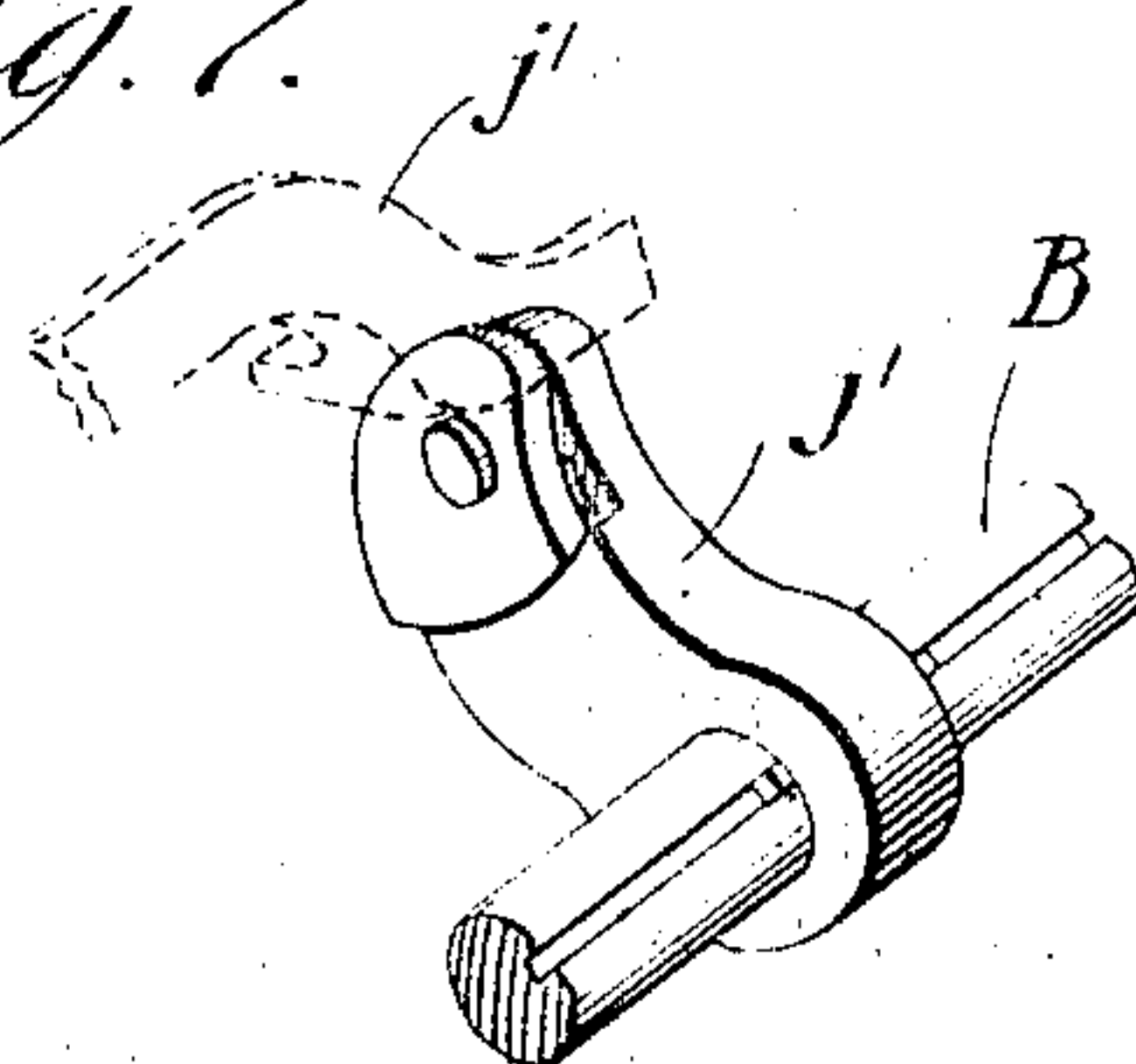


Fig. 7.



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3 SHEETS—SHEET 3.

Fig. 4.

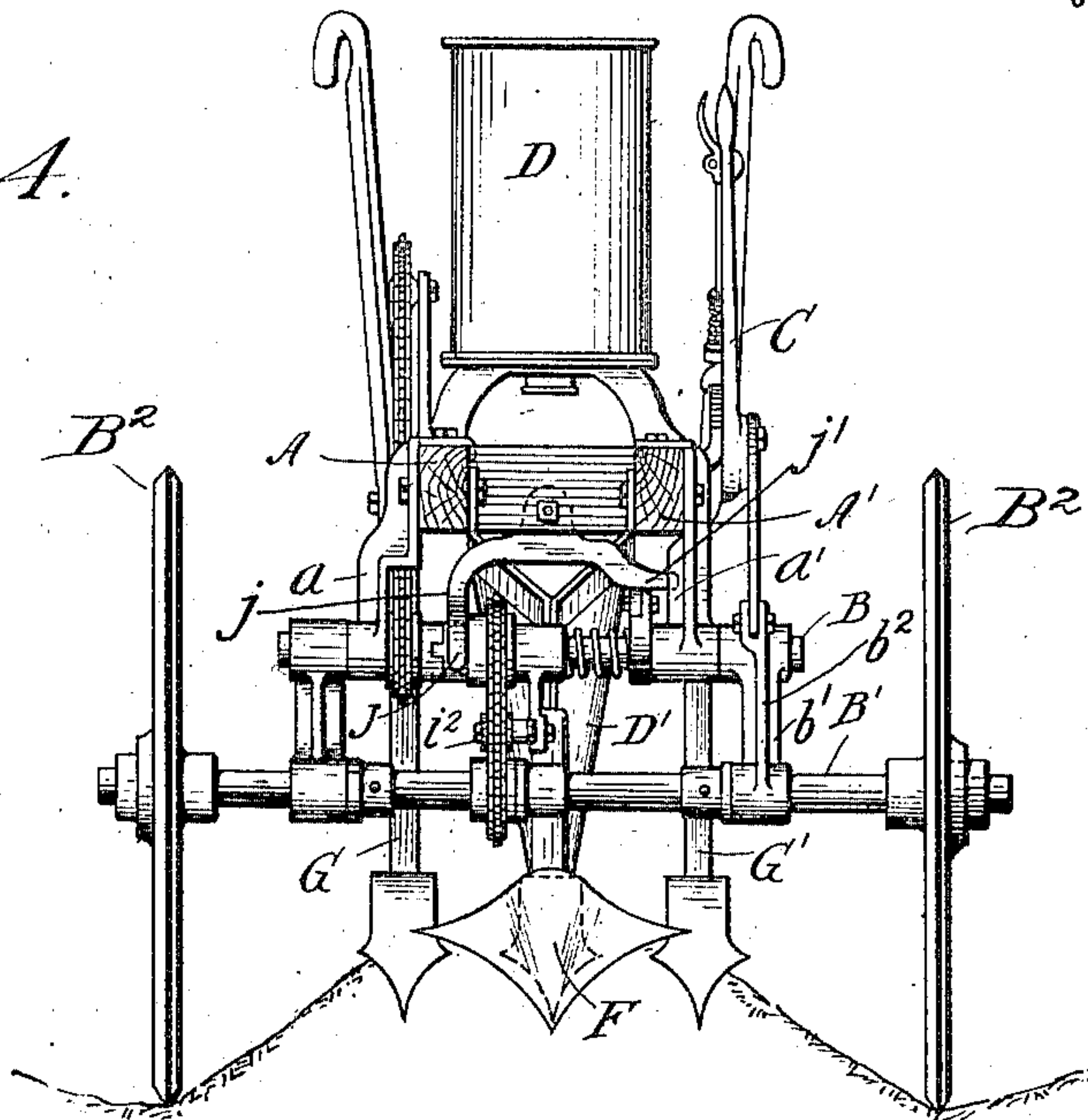


Fig. 5.

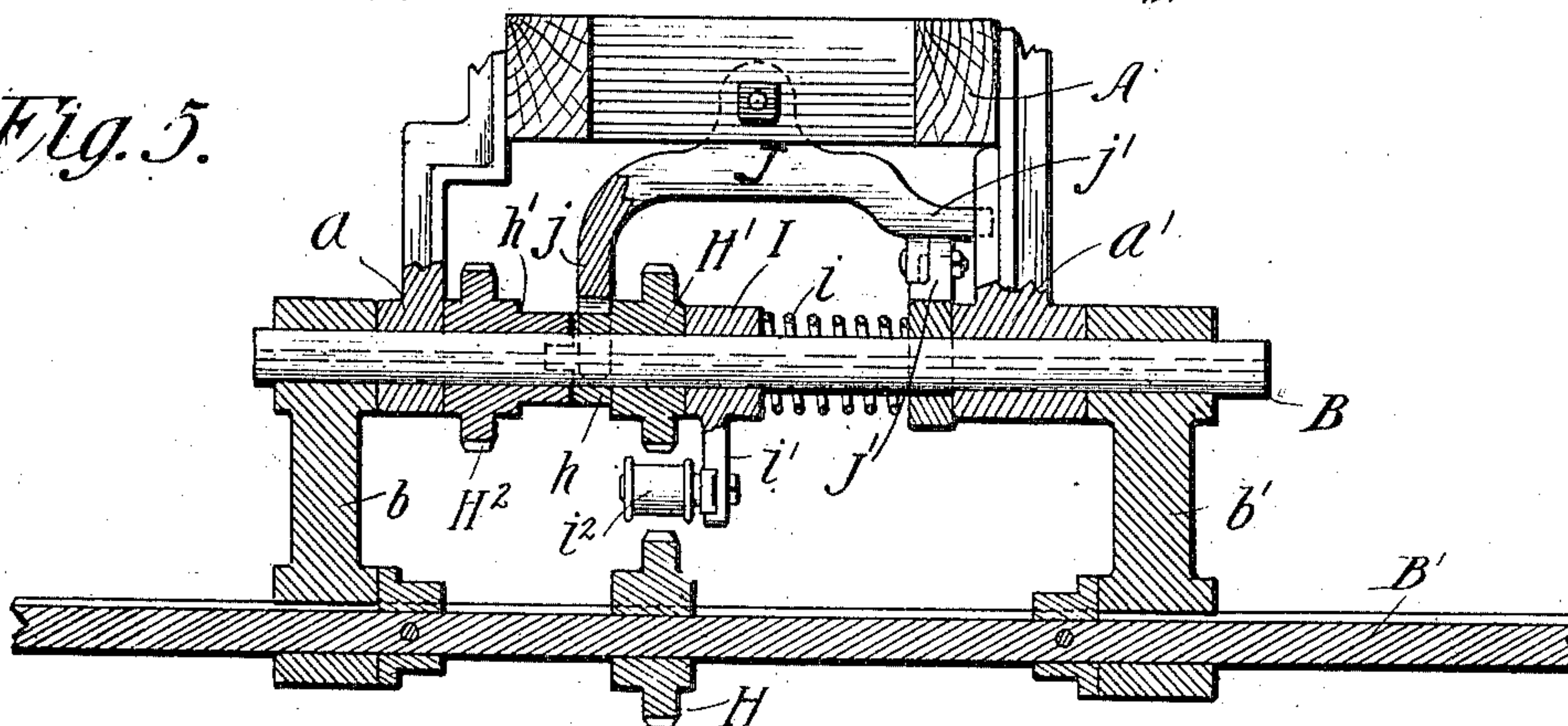
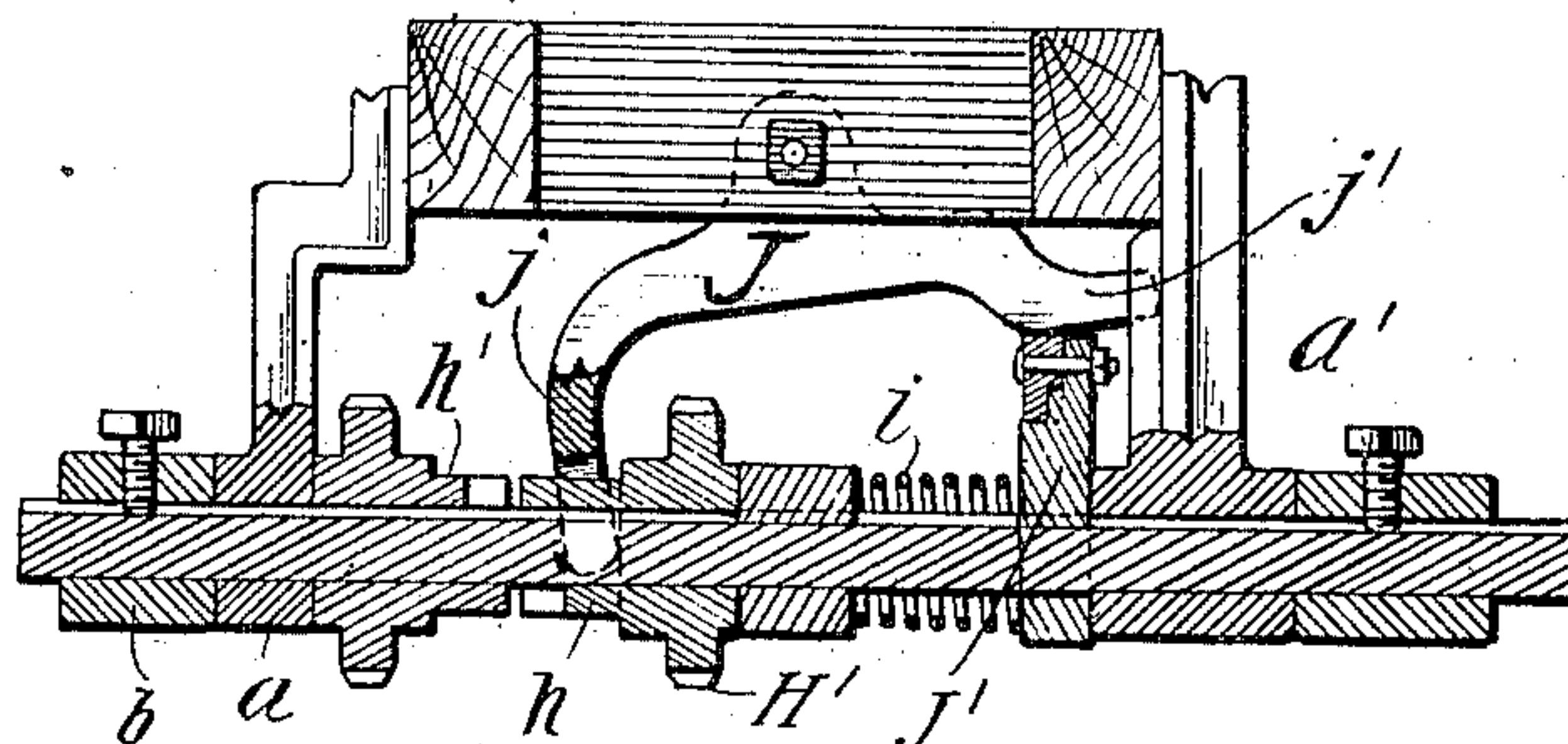


Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM L. CASADAY, OF SOUTH BEND, INDIANA.

SEEDER AND PLANTER.

SPECIFICATION forming part of Letters Patent No. 755,613, dated March 29, 1904.

Application filed January 26, 1903. Serial No. 140,678. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. CASADAY, a citizen of the United States, and a resident of the city of South Bend, in the county of St. Joseph, and State of Indiana, have invented certain new and useful Improvements in Seeders and Planters; and I do hereby declare that the following is a full, clear, and exact description of 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 seeders or planters, and is shown more particularly as embodied in a corn and cotton-seed planter adapted to plant either in the level ground or in furrows or ridges, as preferred.

The object of the invention is to provide a strong, simple, and comparatively inexpensive seeder or planter adapted to be controlled by an operator who walks behind and so constructed as to enable the operator to graduate the depth to which the seed is planted.

The invention embraces many novel features; and it consists in the matters hereinafter described, and more fully pointed out and defined in the appended claims.

In the drawings, Figure 1 is a perspective side elevation, partly broken away, of a device embodying my invention. Fig. 2 is an elevation of the side opposite that shown in Fig. 1. Fig. 3 is a top plan view with the handles broken away. Fig. 4 is a front elevation. Fig. 5 is an enlarged vertical section taken through the axle and shaft, showing the front end of the frame elevated. Fig. 6 is a similar section showing the front end lowered and the machine out of gear. Fig. 7 is a detail of the shifting lever and yoke.

As shown in said drawings, a plow-frame, of wood or other suitable material, having the side rails A and A', is journaled at its front end by means of the brackets or hangers a a' upon a transverse shaft B, as shown in Fig. 5. Said shaft is rigidly secured at its ends in the brackets or arms b b', which are of equal length and are journaled on the axle B', extending therethrough at approximately right angles therewith. Said arms b b', together with the shaft B, form on the same axle a crank adapted to permit the front end of the plow-frame

to be adjusted vertically a distance approximately equal to the length of the arms b b', thereby elevating or lowering the plows either to regulate the depth to which the seed is to be planted or to permit adjustment to enable the device to plant in level ground or furrows. For the purpose of enabling such adjustment to be made an arm b² is integrally connected with the bracket or arm b' and directed forwardly at an angle therewith, as shown in Fig. 1.

A lever C is pivoted on the frame member A' and is provided with a spring-detent c of any desired type, adapted to engage the teeth of the toothed segment C', rigidly engaged on the plow-frame. A connecting-rod c' is engaged on said lever C and pivotally engages the arm b² and acts when the lever C is shifted to adjust the shaft B to the desired elevation.

Located centrally on the plow-frame members A and A' is the seedbox D, provided with any desired mechanism for dropping a predetermined amount or number of seeds into the chute D', which extends downwardly beneath the same and when the machine is in operation extends close to the surface of the ground. Secured on the standard e, depending from the plow-frame and immediately in advance of said chute, is the marking or furrow shovel E. At the lower end of the chute D' and secured on the standard e are the wings d, which serve to prevent the earth falling into the furrow before the seed is deposited. In alinement with and in advance of the standard e, and also secured on the plow-frame, is the depending standard f, which is strongly braced on said frame and has secured at its lower end the opening-shovel F. Preferably said opening-shovel is secured on the standard f in such a manner as to permit the same to give way before an abnormal or unusual strain, thereby preventing breakage of the shovel or standard. For this purpose a shank f', as shown, U-shaped in cross-section, secured centrally on the shovel, extends above the same and engages around the standard. A single bolt f², as shown in Figs. 1 and 2, passes through the lower end of the shank and the standard, and at the upper end of the shank a plurality of apertures are provided which register with an aperture ex-

tending through the standard and through which may be inserted a pin of wood or other suitable material adapted to break when unusual strain is brought against the shovel, thereby avoiding breakage of the shovel or standard.

Rigidly attached to the rear end of the frame and on each side thereof are the downwardly-extending standards G G' , on the lower end of which are provided the covering-shovels g g' , so disposed as to throw the dirt inwardly to cover the seed. Shoes or runners g^2 and g^3 , respectively, of strap-iron, are secured on said standards and directed rearwardly and afford a support for the rear end of the machine. As shown, said shoes at their point of attachment with the standard are slotted vertically to receive a bolt or other means for engaging the same to the standards, thereby permitting said shoes to be adjusted vertically upon the standard to regulate the depth to which the covering-shovels penetrate.

The seed-dropping mechanism is driven from the rotative axle B' , driven by the wheels B^2 B^2 . A sprocket-wheel H is slidably secured on said axle, and a corresponding sprocket-wheel H' , one end of the hub of which is shaped to form a clutch h , is rotatively and slidably secured on the shaft B . A corresponding sprocket-wheel H^2 , also rotative on the shaft B , is provided with a hub clutch member h' , complementary with the clutch member h , as shown in Figs. 5 and 6, and is connected, by means of a sprocket-chain H^2 , with the sprocket-wheel H^3 , which operates the dropping mechanism of the seedbox. Said clutch members are held normally in engagement by a spring i , which bears at one end against the hanger a' and at the other end against the collar I , on which is provided an integral arm i' , having adjustably secured thereon the tightener or idler pulley i^2 , whereby the strain of the sprocket-chain connecting the sprocket-wheels H and H' may be adjusted as desired. Said collar I presses at its inner face against the hub of the sprocket-wheel H' , normally forcing the clutch members into engagement. A yoke J is pivotally engaged upon the end frame member, and one end thereof is cleft and engages the hub of the sprocket-wheel H' between the same and the sprocket-wheel H^2 , and the other end, j' , extends longitudinally of the shaft B into position to be engaged and lifted by the cam-lever J' , adjustably secured on the shaft B , when the shaft B is rotated in elevating or changing the adjustment of the plows or shovels with respect to the surface operated upon. The lifting of the end j' of the yoke by the cam J' acts to force the sprocket-wheel H' laterally and to disconnect the clutch. When, however, the yoke end j' is released, said spring i acts to throw the clutch into engagement, actuating the dropping mechanism.

The operation is as follows: The operator,

walking between the handles, may readily control the depth to which the shovels operate, either in level or in furrowed ground, by means of the lever C . The cam-lever J' may be adjusted to lift the yoke at any desired adjustment of the plows. When once adjusted, further change or rotation of the shaft B in one direction acts to force the clutch members apart, thereby throwing the operating mechanism out of action. Any desired means may be provided to permit a draft animal or animals to be attached to the machine, as shown. However, a draft-iron M is attached by each end to the front ends of the frame members A and A' and is adapted to permit attachment with a swingletree or evenner.

Obviously many features of construction may be modified without departing from the principles of my invention.

I claim as my invention—

1. The combination with a rotative axle, and its wheels, of a bracket-arm on said axle extending at a right angle therewith, a non-rotative shaft rigidly secured on said arm and parallel with the axle, a frame journaled on said shaft at its front end and means for adjusting said shaft both above the axle and laterally thereof, thereby adjusting the elevation of the front end of the frame.
2. The combination with wheels, of an axle rotative therewith, radial arms on said axle, a shaft rigidly secured at the extremities thereof parallel with the axle, a frame, downwardly-extending bracket-arms on the frame, in which the shaft is adapted to partly rotate, and a laterally-directed arm integral with one of said radial arms and operatively connected with a lever adapted to adjust the elevation of the front end of the frame.
3. The combination with wheels, of an axle rotative therewith, radial arms journaled at one end on said axle, a shaft rigidly secured in the other ends of said arms, a frame having depending bracket-arms thereon journaled on the shaft, means for adjusting said shaft both laterally and vertically with respect to said axle and coaxing means on the axle and shaft adapted to communicate the rotation of the axle to mechanism supported upon the frame, operated by the adjustment of the shaft with respect to the axle.
4. The combination with a frame, of centrally-located dropping mechanism thereon, centrally-alined opening and marking shovels secured on the frame, laterally-disposed covering-shovels at the rear end of the frame, a rearwardly-directed shoe acting to limit the operation of the covering-shovels, operating-handles, an axle, a shaft journaled at the front end of said frame, arms rigidly secured at the ends of said shaft and journaled on the axle, and means for adjustably supporting the front end of said frame with respect to said axle.
5. The combination with a frame, of drop-

ping mechanism thereon, opening, marking and covering shovels thereon, means for limiting the depth to which the shovels operate and rotative means on the axle operatively
5 connected with the dropping mechanism on the frame and means for elevating the frame with its shovels with respect to the axle thereby controlling the action and operation of said dropping mechanism.

10 6. The combination with wheels, of an axle adapted to revolve therewith, a radial bracket-arm on the axle, a laterally-directed arm thereon, a non-rotative shaft journaled at the extremity of said bracket-arm parallel with the
15 axle, a toothed segment and lever engaged on the frame, a detent on the lever adapted to engage the teeth of the segment, and a rod connecting the lever with said lateral arm and adapted when the lever is operated to adjust
20 the shaft vertically and laterally of the axle.

7. The combination with wheels, of an axle rotative therewith, radial arms on said axle, a shaft rigidly secured at the extremity of said
25 arms parallel with the axle, a frame supported on said shaft and means carried on the frame for adjusting said shaft with respect to the axle thereby vertically adjusting said frame.

8. The combination with wheels, of an axle rotative therewith, radial arms on said axle,
30 a shaft rigidly secured at the extremity of said arms parallel with the axle, a frame supported on said shaft and means carried on the frame for adjusting said shaft with respect to the axle thereby vertically adjusting said frame,
35 interlocking sprocket-wheels on the shaft, one of which is slidable longitudinally thereon and respectively adapted for chain connection with a sprocket-wheel on the axle, and a sprocket-wheel on the frame and means operated by
40 the adjustment of the frame acting to force said interlocking sprocket-wheels out of engagement.

9. The combination with a rotative axle, of an arm secured thereon radially thereof, a shaft
45 rigidly secured on said arm parallel with the axle, a frame supported on said shaft, sprocket-wheels on the shaft having clutch engagement with each other and adapted respectively to have operative engagement with a sprocket-
50 wheel on the axle and sprocket-wheel on said frame, and a yoke pivoted on the frame and acting to separate said sprocket-wheels when the adjustment of the frame is varied.

10. In a device of the class described, a ro-
55 tative axle, a non-rotative shaft carried thereon parallel therewith, a sprocket-wheel slidably secured on the axle and shaft respectively, a sprocket-chain thereon, means for sliding one of said sprocket-wheels on the shaft, and a
60 guide-tightener slidably secured on the shaft and adapted both to adjust the tension of the chain and to adjust the sprocket-wheels correspondingly on the shaft and axle.

11. The combination with a planter-frame,
65 of operating-handles at the rear end thereof,

adjustable rearwardly-directed supports at the rear end of said frame, shovels on said supports and adjustable means at the front end of the machine for varying the elevation of the frame comprising a shaft carried on said frame,
70 an axle and supporting-wheels therefor, arms journaled on the axle and rigidly secured on said shaft and means thereon for raising and lowering the frame with respect to the axle.

12. The combination with a frame, of drop-
75 ping mechanism supported thereon, an opening-shovel and a marking-shovel adjustably secured and centrally aligned on the frame, a chute at the rear of the marking-shovel, laterally-disposed covering-shovels at the rear of
80 the frame, adjustable rearwardly-directed shoes at the rear of said covering-shovels acting to limit the depth of operation thereof and means for adjusting the frame to permit operation of said shovels on both level-ground
85 and in the tops of furrows or ridges.

13. In a planter, the combination with the frame, and the planting mechanism thereon, of a supporting-axle, means thereon adapted to drop the front end of the frame rearwardly
90 of the axle, adjustable opening and marking shovels centrally aligned on the frame, covering-shovels laterally disposed at the rear end of the frame, means for limiting the depth of operation thereof, and adjustable means for
95 determining the elevation of operation of the shovels and planting mechanism.

14. In a corn and cotton-seed planter, the combination with the planting mechanism and shovel-frame, of wheels supporting said
100 shovel-frame, an axle therein, a shaft journaled transversely of the frame, and means thereon for adjusting the planting mechanism and shovels for operation either in level ground or on the tops of furrows or ridges.
105

15. In a machine of the class described the combination with a vertically-adjustable frame, of a transverse shaft journaled therein, a yoke pivoted on the frame and extending longitudinally of the shaft and an adjustable cam
110 adapted to engage said yoke and acting to throw the machine into and out of operation dependent on the adjustment of the frame.

16. The combination with an adjustable frame, of a transverse shaft journaled thereon,
115 a spring-operated clutch on said shaft, a yoke pivoted on the frame longitudinally of the shaft and adapted to engage at one end one of said clutch members, and a cam-lever adjustably secured on the shaft in position to en-
120 gage the opposite end of said yoke when the frame is adjusted and throw said clutch members into and out of operative engagement.

In witness whereof I have hereunto sub-
scribed my name in the presence of two sub-
scribing witnesses.

WILLIAM L. CASADAY.

Witnesses:

ADOLPH S. GINZ,

A. C. ODELL.