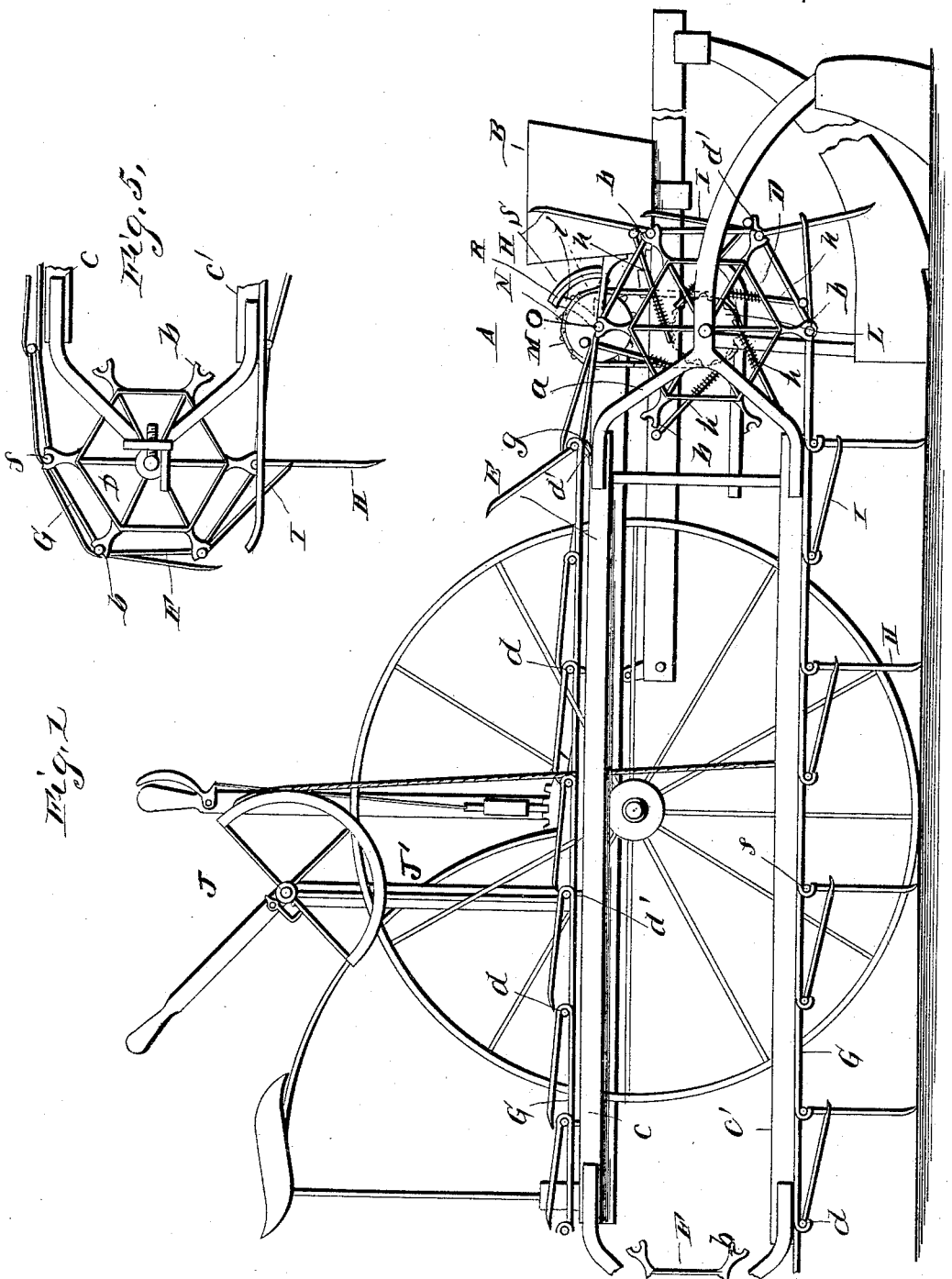
(No Model.)

3 Sheets—Sheet 1.

A. F. BATCHELLER & J. B. KERR.

CHECK ROW ATTACHMENT FOR CORN PLANTERS.

No. 422,176. Patented Feb. 25, 1890.



WITNESSES

INVENTORS
A. F. Batcheller.
James B. Kerr.
by E. W. Anderson.
Attorney

(No Model.) 3 Sheets—Sheet 2.

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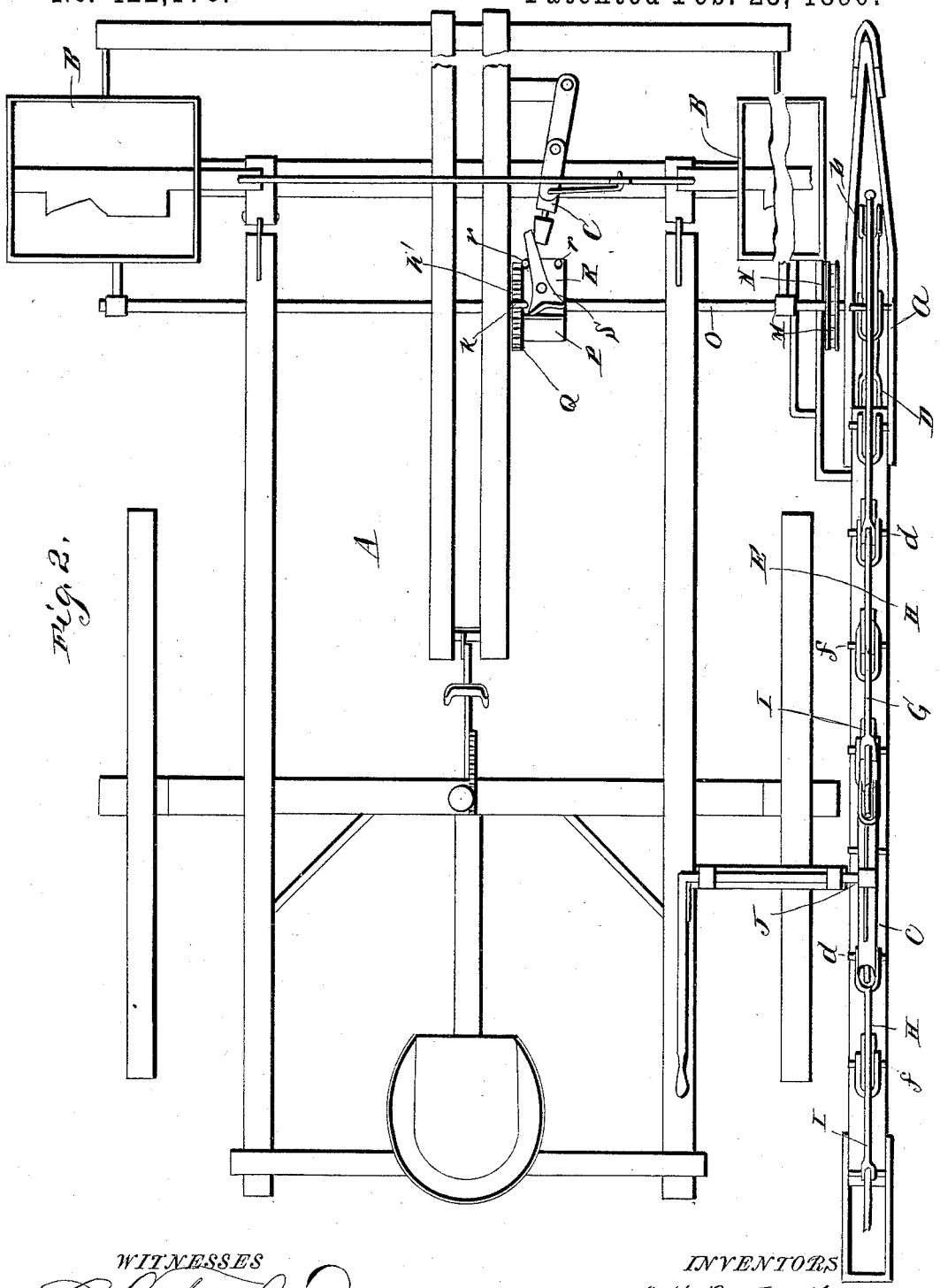

Fig. 2.

WITNESSES

C. L. Taylor

Phill. C. Masi.

INVENTORS

A. F. Batcheller.

James B. Kerr,

by E. W. Anderson.

Attorney

(No Model.) 3 Sheets—Sheet 3.

A. F. BATCHELLER & J. B. KERR.

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Fig. 3.

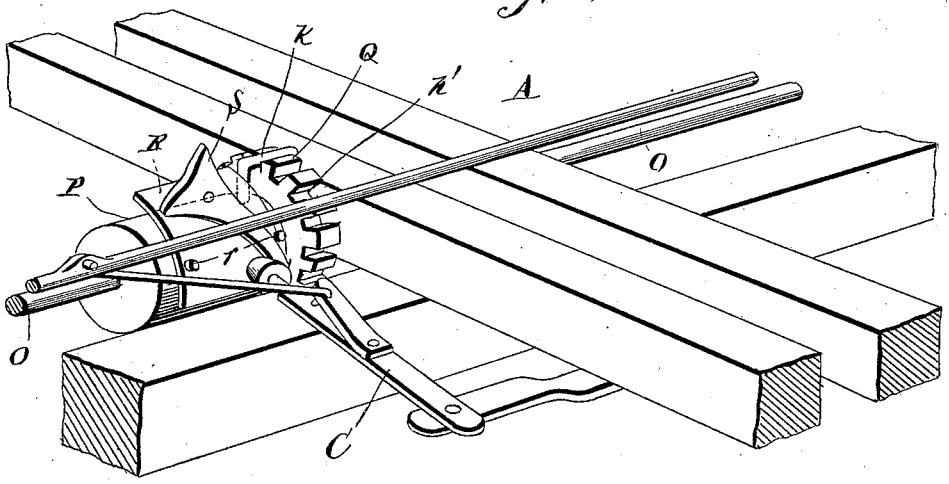
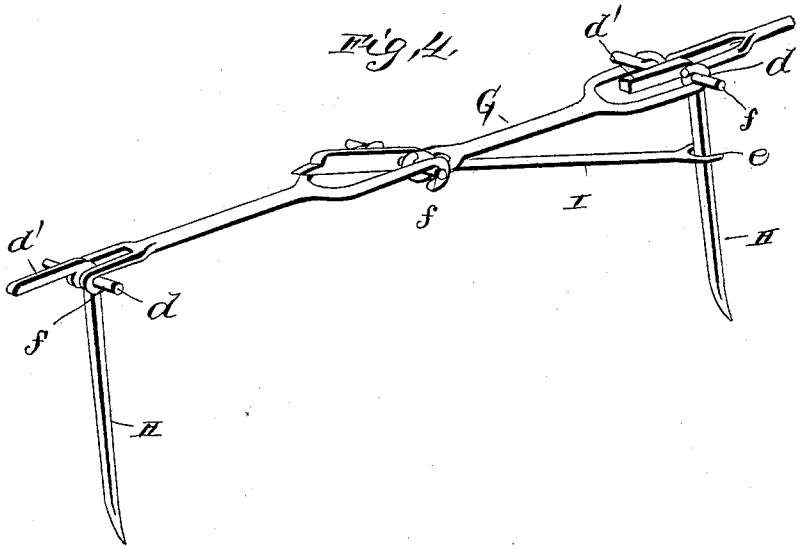


Fig. 4.



WITNESSES

C. L. Taylor

Philleddasi

INVENTORS

A. F. Batcheller

James B. Kerr,

by E. W. Anderson.

Attorney

UNITED STATES PATENT OFFICE.

ALEXANDER F. BATCHELLER AND JAMES B. KERR, OF CEDAR FALLS, IOWA.

CHECK-ROW ATTACHMENT FOR CORN-PLANTERS.

SPECIFICATION forming part of Letters Patent No. 422,176, dated February 25, 1890.

Application filed May 27, 1889. Serial No. 312,266. (No model.)

To all whom it may concern:

Be it known that we, ALEXANDER F. BATCHELLER and JAMES B. KERR, citizens of the United States, and residents of Cedar Falls, in the county of Black Hawk and State of Iowa, have invented certain new and useful Improvements in Check-Row Attachments; and we do 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 letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side view. Fig. 2 is a top plan view. Fig. 3 is a detail view in perspective. Fig. 4 is a detail view. Fig. 5 is also a detail view.

This invention relates to attachments for corn-planters for regulating and operating the dropping mechanism; and it consists in the construction and novel arrangement of parts, as hereinafter set forth.

Referring to the drawings, A designates a planter, of any construction, usually adapted for horse-power, having the seed-boxes B, provided with the usual slides, and the lever C for operating the same.

D represents a hexagonal wheel journaled on a pin extending from the bracket A of the frame E, and F shows a similar wheel journaled at the rear end of said frame. The wheels D F are provided with sprocket or guide arms *b* for engaging and guiding the endless chain G, which at its portions between said wheels D and F rests upon the reaches *c c'* of the frame. The links of the chain G have their bifurcated ends connected by a pivotal bolt or rivet *d*, which serves also as pivots for the stakes H and braces I, alternately distributed throughout the length of the chain. The stakes H consist of the straight main portion designed to enter the ground and rotate the wheel D, as hereinafter described, and have the short arm *d'* at right angles thereto near the pivotal point. The braces I are pivoted in a manner similar to the stakes in the rear thereof, and are branched or bifurcated at their ends *e* to engage against the stakes while in operation.

The frame may be elevated to clear the stakes from the ground by means of the rear angle-lever J, pivoted to a standard J', rising from the planter-frame and having a rope or chain connection with said frame.

In operation as the planter is drawn forward the stakes, penetrating the ground, bring the latter lugs *d* at the joint of the chain-links in contact with the rear of the sprockets on the wheel D, and thus revolving said wheel. During this movement the stakes are brought into position by the trip *g* on the front upper end of the frame engaging the end of the short arm *d'*, and the spring-controlled bolts *h*, projecting through the rim of the wheel D, forces the brace outward. The said braces, however, when they reach the lower portion of the frame resume their normal position near the pivoted end of the stake.

L is a sprocket-wheel secured to the inner side of the wheel D, and a chain M leads therefrom to the sprocket-wheel N on the transverse shaft O, which is journaled in bearings extending from the seed-boxes, as shown.

Q is a disk rigidly secured on the shaft O and having the notches *h'* in its edge, and P is a sleeve loosely placed on said shaft at one side of the disk. Arms, Figs. 1 and 3, extend outwardly from the sleeve P and have the curved plate R attached to their ends. A pivoted dog *k* is provided to engage one of the notches *h'* for the purpose of adjustment.

S is a cam-plate having a general triangular form and pivoted about centrally to the plate R. The said cam-plate is bowed outward at its center, so that the ends will have a slight tension on the curved plate and prevent the cam from moving accidentally. The two opposite edges of the cam-plate are curved from the point to the heel, as shown. The curve at the heel end, or in the rear of the pivotal point, is somewhat shorter than that forward of the pivot. Stop-lugs *r*, projecting outwardly at opposite sides of the curved plate, are designed to limit the movement of the cam-plate.

In operation the shaft O is revolved and carries the cam-plate so that one curved edge strikes against and shifts to one side the lever

C, and when said lever reaches the portion of the cam in the rear of the pivotal point the cam is shifted so that its point end is at the opposite side of the curved plate against the lug, and at the next revolution the opposite edge of the cam-plate returns the lever C to its first position. Thus the seed-slides are alternately operated to drop the seed.

Having described our invention, what we claim is—

1. The combination, with a seed-planter, of the frame secured to the main frame, the hexagonal wheels having the sprocket projections, the trip on said frame, the pivotal links forming the endless chain and having the lateral projections, the pivoted stakes having the short arm, the pivoted braces bifurcated at the end, the spring-controlled bolts, the sprocket-wheels, the sprocket-chain, and the transverse shaft, substantially as specified.

2. In a corn-planter, the combination, with the transverse shaft, the operating mechanism, and the slide-shifting lever, of the notched disk secured to said shaft, the sleeve having the arms, the dog, the curved plate, and the triangular cam-plate pivoted to the curved plate, substantially as specified.

3. In a corn-planter, the combination, with the shaft O and its rotating mechanism, of the notched disk secured thereon, the loose sleeve having the integral arms, the pivoted dog, the curved plate secured to said arms, the lugs thereon, and the pivoted triangular cam-plate having the curved edges and bowed outwardly at its center, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

ALEXANDER F. BATCHELLER.
JAMES B. KERR.

Witnesses:
LAUFEAR KNAPP,
M. HAMMOND.