(No Model.) 3 Sheets—Sheet 1.

C. A. McELROY.

CULTIVATOR.

No. 301,382. Patented July 1, 1884.

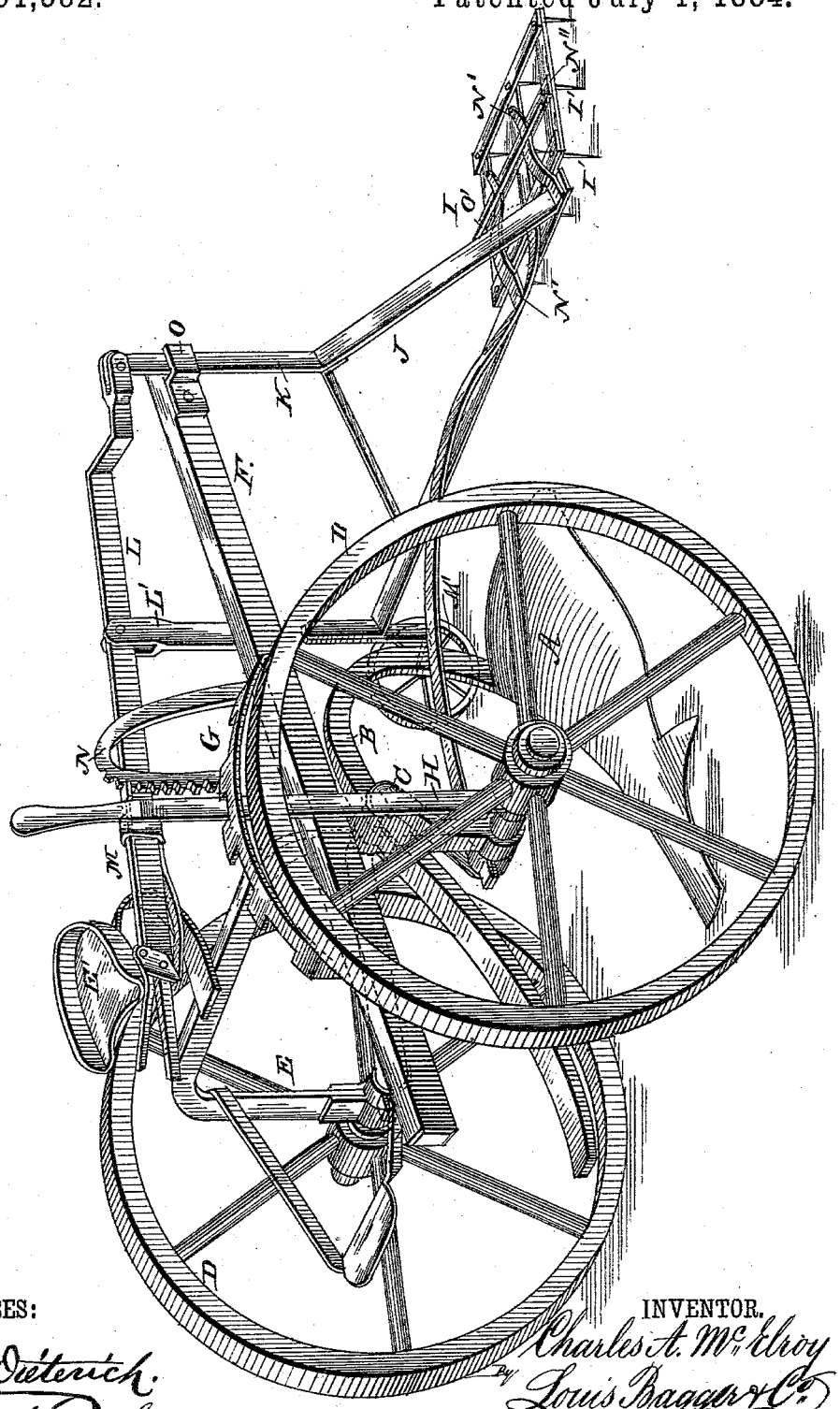

Fig. 1.

WITNESSES:

Fred. L. Dieterich.

J. Fred. Reily.

INVENTOR.

Charles A. McElroy

By Louis Bagger & Co.

ATTORNEYS.

(No Model.) 3 Sheets—Sheet 2.

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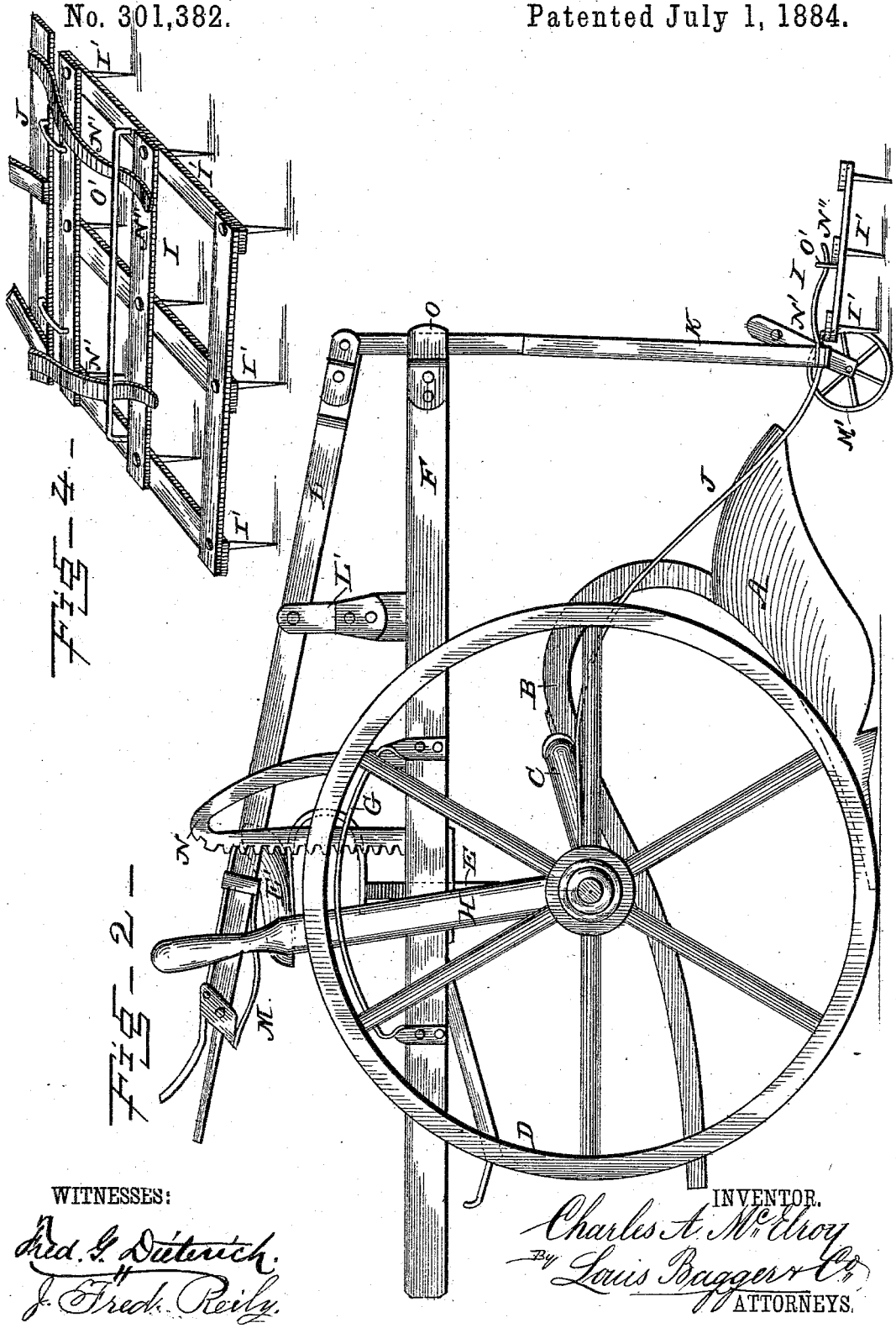

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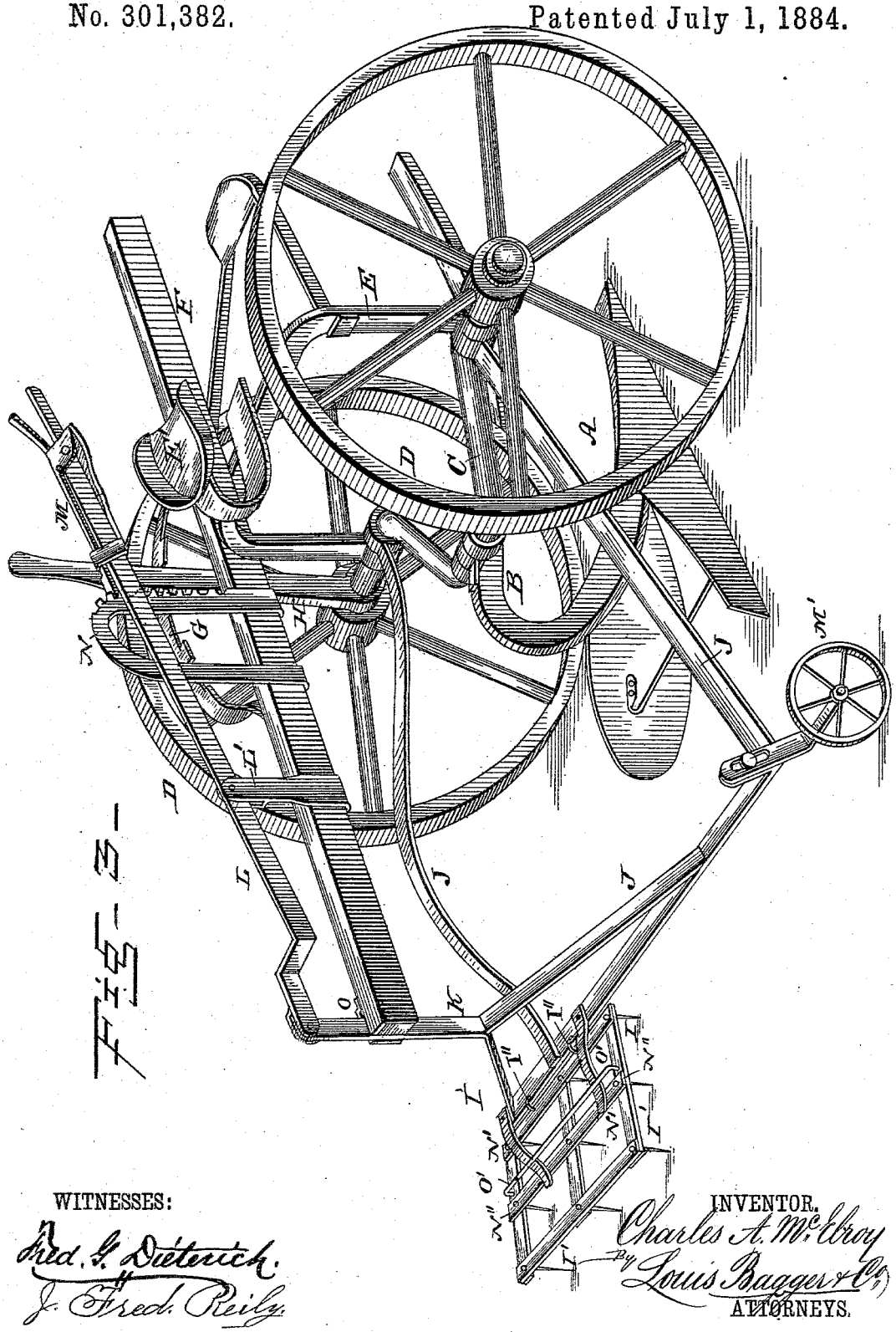

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UNITED STATES PATENT OFFICE.

CHARLES A. McELROY, OF DELAWARE, OHIO.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 301,382, dated July 1, 1884.

Application filed February 18, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. McELROY, a citizen of the United States, and a resident of Delaware, in the county of Delaware and State of Ohio, have invented certain new and useful Improvements in Cultivators; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved cultivator. Fig. 2 is a side view of the same. Fig. 3 is a perspective rear view, and Fig. 4 is a perspective detail view, of the lower operative portion of the harrow attachment.

Similar letters of reference indicate corresponding parts in all the figures.

My invention relates to that class of cultivators in which are combined a sulky-plow and an adjustable harrow; and it consists in the improved construction and combination of parts of the same, as will be hereinafter more fully described and claimed.

In the accompanying drawings, A represents the plow proper of the machine, which is of ordinary construction, and which is pivotally secured at about the center of its standard B to the central double crank of the axle C, upon the extremities of which are journaled the main wheels D.

E indicates the arch of the sulky-frame, upon the top of which is secured the driver's seat E'.

To that side of the arch E which is to the left hand of the driver is rigidly secured a horizontal beam, F, upon one side of which is secured a segmental rack, G, while to the axle C, between the left-hand main wheel and that side of the arch, is rigidly secured the lower end of a lever, H, the upwardly-extending free end of which is adapted to engage with the segmental rack G.

I represents the harrow proper, which is provided with the downwardly-projecting teeth I', and is loosely connected to the rear cross-piece of the frame J by means of links I'', for the purpose hereinafter set forth. The side pieces of the frame J have their forward ends pivotally connected to the axle C on either side of its central double crank, while to the rear cross-piece of the said frame is rigidly secured the lower end of an upwardly-extending rod, K, the upper extremity of which passes above the horizontal beam F, and is pivotally secured to the rear end of a lever, L, pivoted in a suitable bearing, L', on the top of the beam F, and provided at its forward free end with a spring-catch, M, adapted to engage with the teeth of a rack, N, secured in a vertical position upon the beam F.

Upon the rear end of the horizontal beam F is secured a keeper, O, which serves as a guide for the vertical sliding rod K.

To the lower left-hand corner of the frame J are rigidly secured by one of their ends two spring-arms, N' N', the free extremities of which bear upon the central chaffing-plate, N'', of the harrow I, and thereby serve to hold it down to its work, at the same time being possessed of sufficient elasticity to admit of the harrow standing at the same inclination to the ground being operated upon, to whatever point the frame J may be raised or lowered by the operating-lever L. A metal rod or bail, O', secured upon the upper side of the harrow, and beneath which the free ends of the spring-arms N' extend, serves to prevent the harrow from falling when the frame J is raised, as would otherwise be the case.

To the lower right-hand corner of the frame J is adjustably secured a small wheel, N', which serves to decrease the friction of the harrow attachment when the machine is in use.

From the foregoing description, taken in connection with the accompanying drawings, the construction of my improved cultivator will readily be understood without requiring further explanation. It will be seen that by means of the lever H the crank-axle C can be turned so as to increase or lessen the depth of the furrow cut by the plow A, while by means of the lever L the frame J can be raised or lowered, as desired, to adjust the depth to which the teeth of the harrow I will penetrate the ground.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

In a cultivator of the described construction, the combination, with the sulky-plow herein

shown and described, of the horizontal beam F, having secured upon it a vertical rack, N, operating-lever L, pivoted upon the beam F, and provided at its free end with a spring-catch, M, adapted to engage with the teeth of the rack N, frame J, provided with the wheel M′, and spring-arms N′ N′, and harrow I, provided with the teeth I′, chaffing-plate N″, and bail O′, beneath which the free ends of the spring-arms N′ N′ extend, all constructed and arranged to operate, substantially in the manner and for the purpose shown and described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

CHARLES A. McELROY.

Witnesses:

CHARLES W. KNIGHT,

E. R. GREINER.