

No. 827,110.

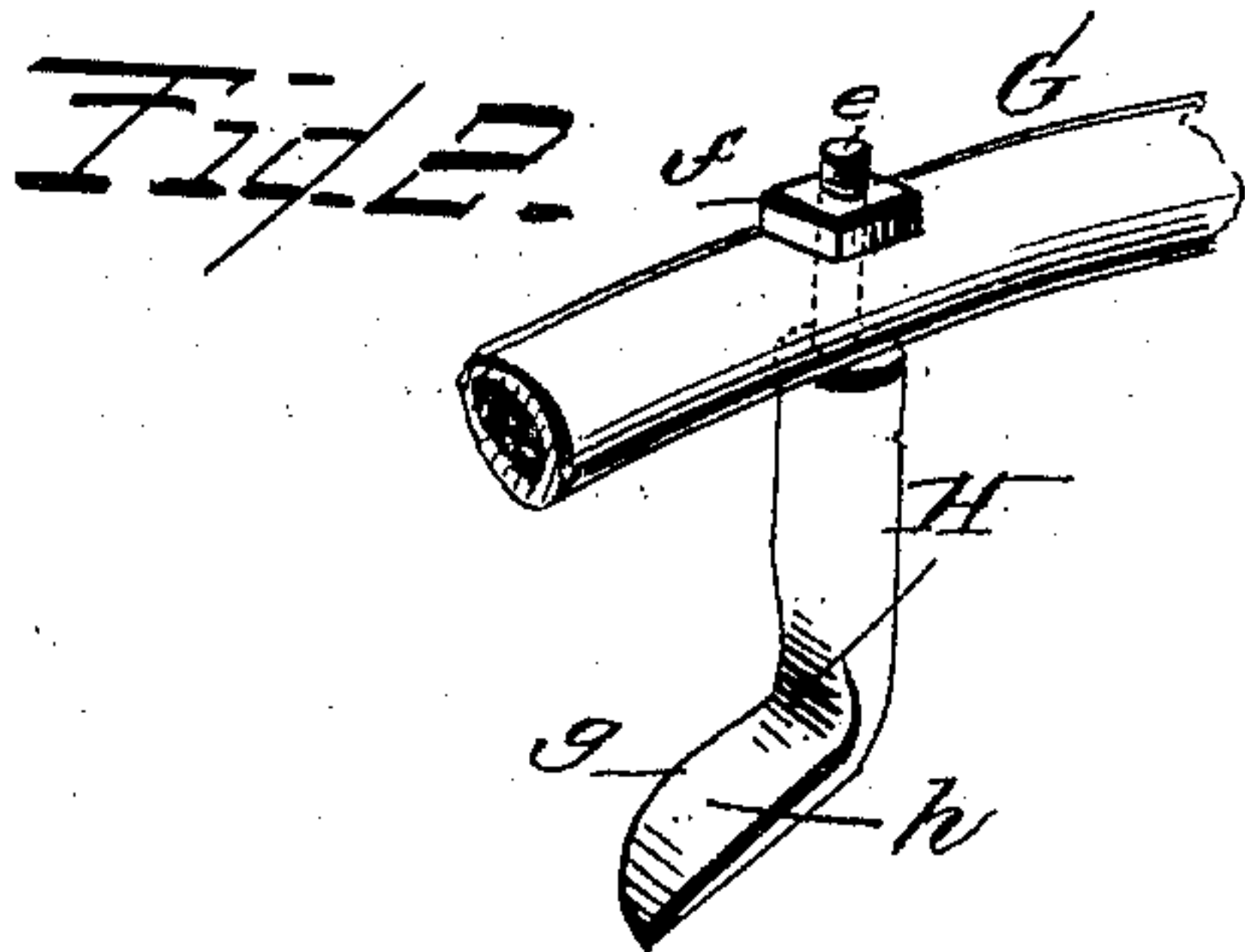
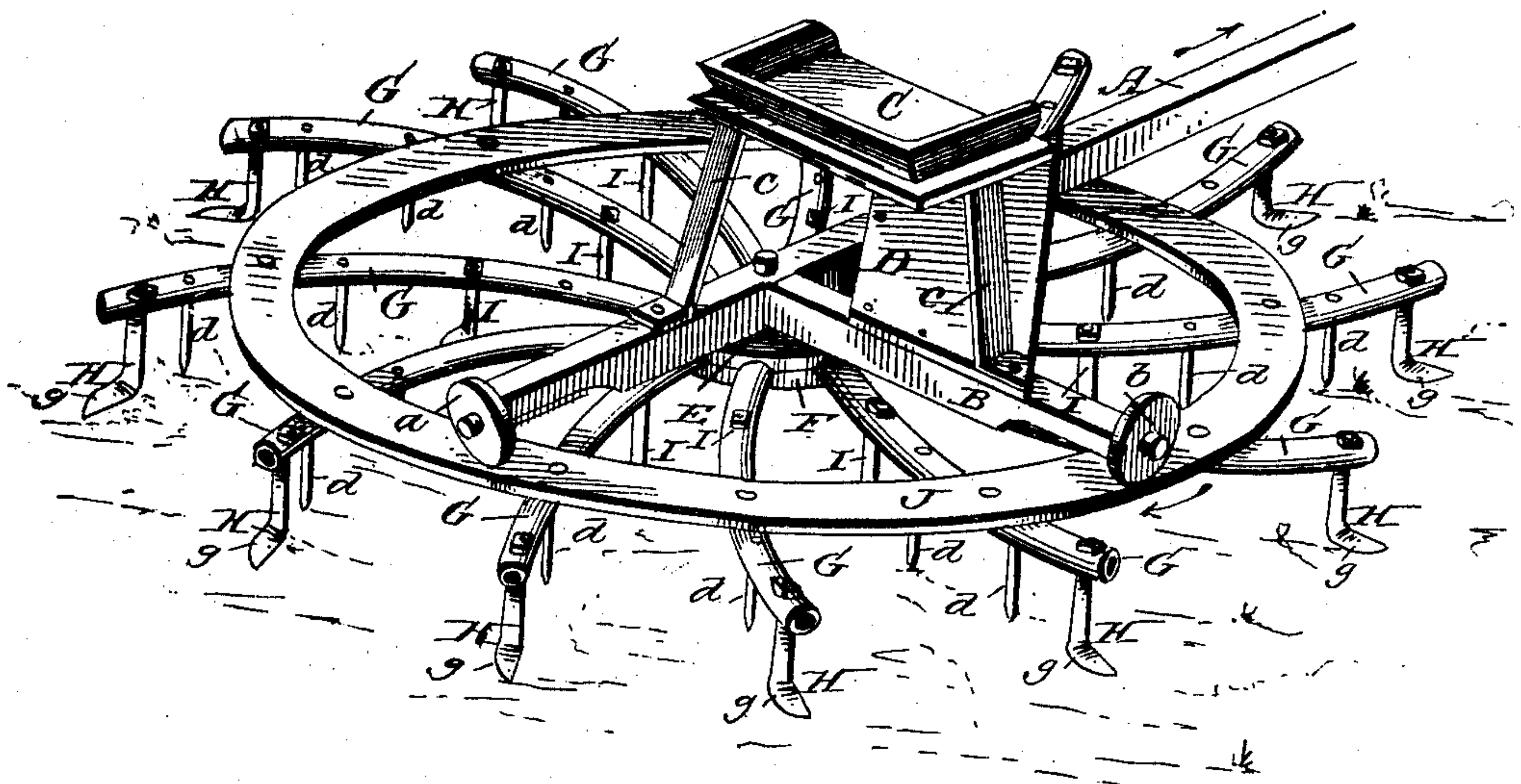
PATENTED JULY 31, 1906.

W. E. McCANN.

HARROW.

APPLICATION FILED MAY 8, 1906.

Fig. 1



Witnesses

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# UNITED STATES PATENT OFFICE.

WILLIAM E. McCANN, OF NOBLE, OKLAHOMA TERRITORY.

## HARROW.

No. 827,110.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed May 8, 1906. Serial No. 315,785.

*To all whom it may concern:*

Be it known that I, WILLIAM E. McCANN, a citizen of the United States, residing at Noble, in the county of Cleveland and Territory of Oklahoma, have invented certain new and useful Improvements in Harrows; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has reference to that class of rotatable harrows upon which a patent was granted to me the 29th day of June, 1886, and numbered 344,665, and is designed as an improvement thereon, whereby provision is made for cutting and taking up the trash and delivering it to the rear of the machine, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a rotatable harrow embodying my invention; Fig. 2, a detail perspective view, on an enlarged scale, of one of the harrow-arms, showing the outer end thereof with the cutter connected thereto.

In the accompanying drawings, A represents the draft-beam, which extends some distance rearward and is provided with a friction-roller *a* at its end, and extending from the rear portion of the draft-beam is an arm B, having at its outer end a friction-roller *b*. Instead of the arm B being removably connected to the draft-beam A by means of a pivot-bolt, as in my former patent, said arm is rigidly and permanently attached to the beam, and the seat C is supported in the usual manner by the braces *c*, connected thereto and to the draft-beam and extension-arm, the footboard D being secured thereto by nailing or in any other suitable manner. The rear portion of the draft-beam A has pivotally connected thereto a clamping-head comprising two clamping-sections E F, between which the curved harrow-arms G are held, similar in construction to the clamping-head in my former patent.

The harrow-arms G extend radially from a common center and are provided with the usual teeth *d*, and at the end of each arm is a cutter H, which is both adjustably and removably connected to the arm by means of the screw-shank *e* and nut *f*, that portion of the shank below the screw-threaded end be-

ing flat-sided to fit a correspondingly-formed hole in the harrow-arm, or any other means may be employed for adjustably and removably connecting the cutter to the arm. Any number of the cutters may be used in connection with the harrow-teeth, and I have shown a second cutter I at about the middle of the harrow-arm, said arms being connected to and braced by the circular track J. The cutting edge *g* of the cutters as the harrow-arms revolve in the direction of the arrow will cut and lift the grass, weeds, or other trash and carry it around to the rear of the harrow, at which point it will slide off the cutter, as the cutting edge will then be on the line of draft. The cutter H is both curved and convex upon its upper face, as indicated at *h* in Fig. 2 of the drawings, to render the cutter more effective in the dislodgment of the trash therefrom, the cutters in connection with the teeth used in my former patent rendering the harrow more effective, and its adjustability with relation to the draft of the harrow will bring the cutting edge at any desired angle, as circumstances require.

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

1. A harrow having a plurality of curved arms with teeth projecting therefrom, and cutters at the extremity of the arms, said cutters extending horizontally and having a curved and convex upper face, said cutters adjustably and removably connected to the arms, substantially as and for the purpose set forth.

2. In a harrow, a draft-beam extending rearward and having a friction-roller at its end, an extension-arm carrying a friction-roller, a circular track with which the rollers engage, a sectional clamping-head pivotally connected to the draft-beam, curved radial arms held thereby, teeth upon said arms, and cutters at the extremity of the arms which extend horizontally and are adjustably and removably connected thereto, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM E. McCANN.

Witnesses:

S. HEDARIS,

ELSA M. BEASLEY.