(No Model.)

C. C. BRADLEY.

HARVESTER.

No. 245,343. Patented Aug. 9, 1881.

FIG. 1.

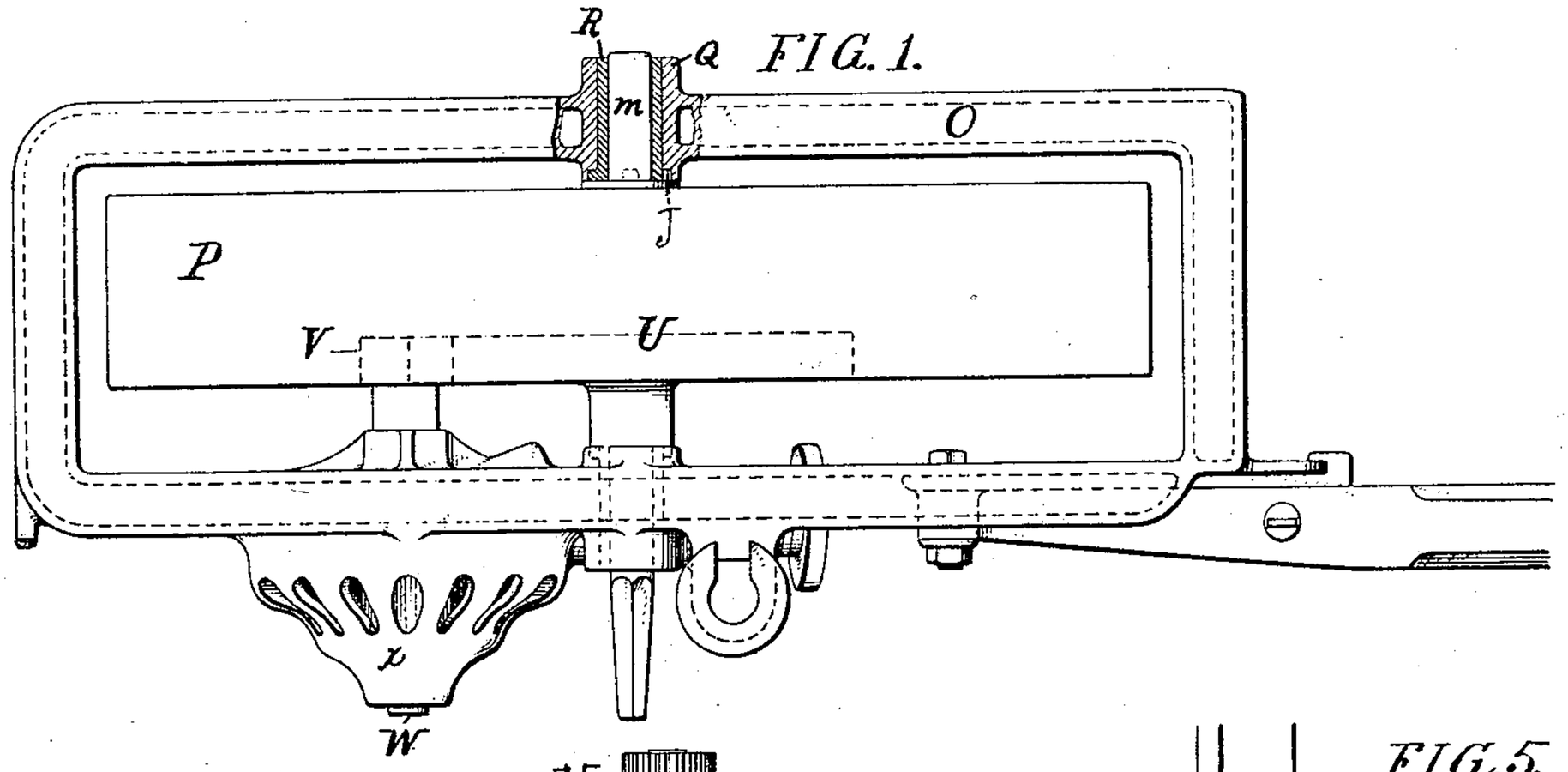

FIG. 4.

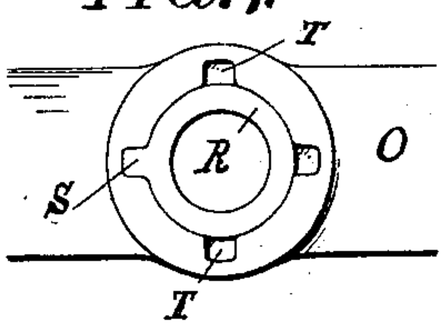

FIG. 3.

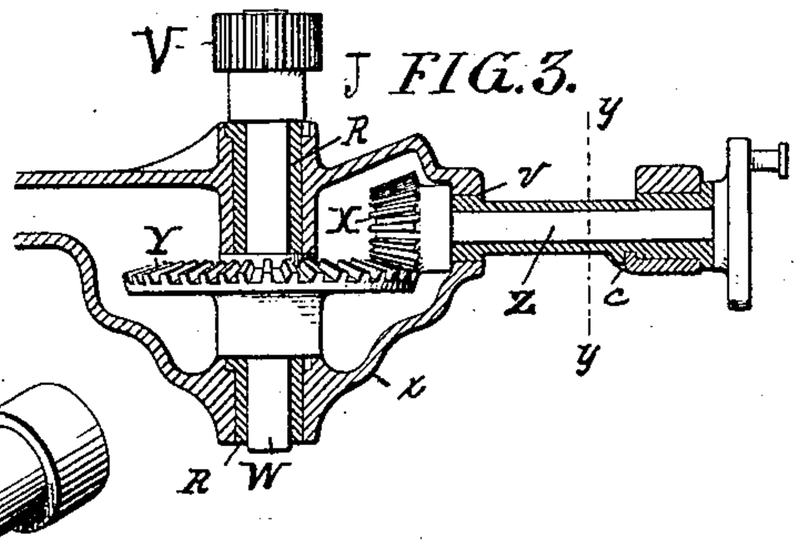

FIG. 5.

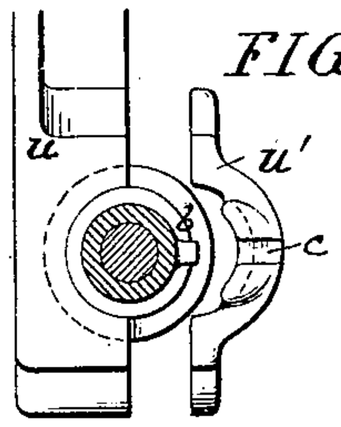

FIG. 6.

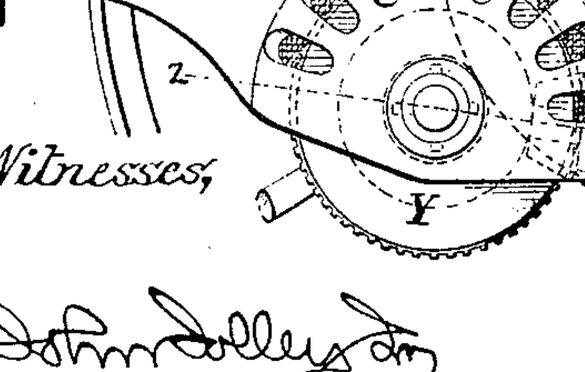

FIG. 7.

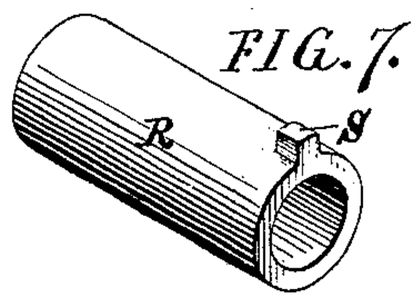

FIG. 2.

Witnesses,

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UNITED STATES PATENT OFFICE.

CHRISTOPHER C. BRADLEY, OF SYRACUSE, NEW YORK.

HARVESTER.

SPECIFICATION forming part of Letters Patent No. 245,343, dated August 9, 1881.

Application filed April 27, 1881. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER C. BRADLEY, of Syracuse, New York, have invented a new and useful Improvement in Harvesters, of which the following is a specification.

This invention relates to harvesters of the type invented by me, and patented to me in and by Letters Patent No. 236,209, dated January 4, 1881, being especially applicable to machines embodying the features of construction of the main frame and minor axle typified in such machine.

My present invention relates to the improved construction of the following parts, viz: the box of the crank-shaft, which is made replaceable, and the journals of the main axle and of the minor axle, which is fitted with bushings.

In the accompanying drawings, Figure 1 is a top-plan view of the main frame and housing of the minor axle, section being taken centrally in a horizontal plane through one of the journal-boxes of the drive-wheel. Fig. 2 is a side elevation of the same, looking from the platform side toward the drive-wheel, exhibiting the application of the box of the crank-shaft. Fig. 3 is a top sectional plan, through the housing of the minor axle and box of the crank-shaft, in the plane indicated by the line *z z* of Fig. 2. Fig. 4 is a vertical elevational detail of one of the bushings, in place within one of the boxes of the main axle, viewed from the inside of the frame-work before the drive-wheel is set in place. Fig. 5 is a sectional elevational detail of the casing for the outer end of the box of the crank-shaft; section being taken through said box and crank-shaft on the line *y y* of Fig. 3, and the parts being viewed from the left-hand side of said Fig. 3, under the assumption, however, that such parts occupy the same vertical position which they are represented as occupying in Fig. 2. Fig. 6 represents, in perspective, my improved box for the crank-shaft; and Fig. 7 represents, in perspective, one of the bushings of the axle.

Similar letters of reference indicate corresponding parts.

In the accompanying drawings, O is the main frame—a casting of rectangular form and of substantially the form represented. Within this frame is set the drive-wheel P by means of the axle *m*, journaled in the boxes Q, which contain bushings R, of substantially the form shown in Fig. 7—that is to say, provided on their inner face with a lug, S, which is fitted to take into a seat, T, upon the inner face of the journal-bearing. The object of this contrivance is to enable the ready removal of the bushing and its half or quarter rotation, in order to bring its lug successively into different seats, of which a given series may be formed radially in the journal. These bushings are applied from the inside of the journal before the road-wheel is set in place. They are also applicable and are shown applied to the journals of the minor axle. They are likewise applicable to other than harvester-journals.

U is the driving spur-wheel, which has the usual ratchet-connection with the drive-wheel, and which gears with the driving-pinion V on the inner end of the minor axle W, the outer extremity of which carries the bevel-wheel Y, which imparts motion to the bevel-pinion X, which is keyed to and drives the crank-shaft Z.

In Fig. 6 I have represented an improved box, *a*, which I employ as a bearing for the crank-shaft. It consists in a journal-box of substantially the form indicated in Fig. 5, the outer face of which is provided with a lug, *b*, designed to engage within a recessed projection, *c*, Figs. 2, 3, and 5, formed upon the removable half *w'* of the casing *w*, which depends from the main frame and holds the forward end of the crank-shaft box *a* removably in place. By the employment of this contrivance I obtain a readily removable and therefore replaceable bearing for the crank-shaft, and one which is readily set in the machine and taken out by the removal or application of the removable half *w'* of the casing *w*, the rear extremity of the box being simply fitted into a properly-shaped hole, *v*, Fig. 3, in the housing *x* of the minor axle.

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

1. As a new article of manufacture, a journal-box for the crank-shaft of the cutter-bar, consisting of a tubular casting (within which

said shaft rotates) provided with a lug, in combination with a hole in the housing of the minor axle, and with the removable portion of a casing or bearing depending from the main frame, a recessed projection of which casing engages with the lug, substantially as set forth.

2. As a new article of manufacture, a bushing for the axles of a harvester, provided with a lug on its inner extremity, in combination with a journal-box incasing it, and provided with a series of radially-arranged seats, within which the lug can be successively retained, as and for the purpose set forth.

In testimony whereof I have hereunto signed my name this 21st day of April, 1881.

CHRISTOPHER C. BRADLEY.

In presence of—
C. S. BUNNELL,
WATERMAN C. BRADLEY.