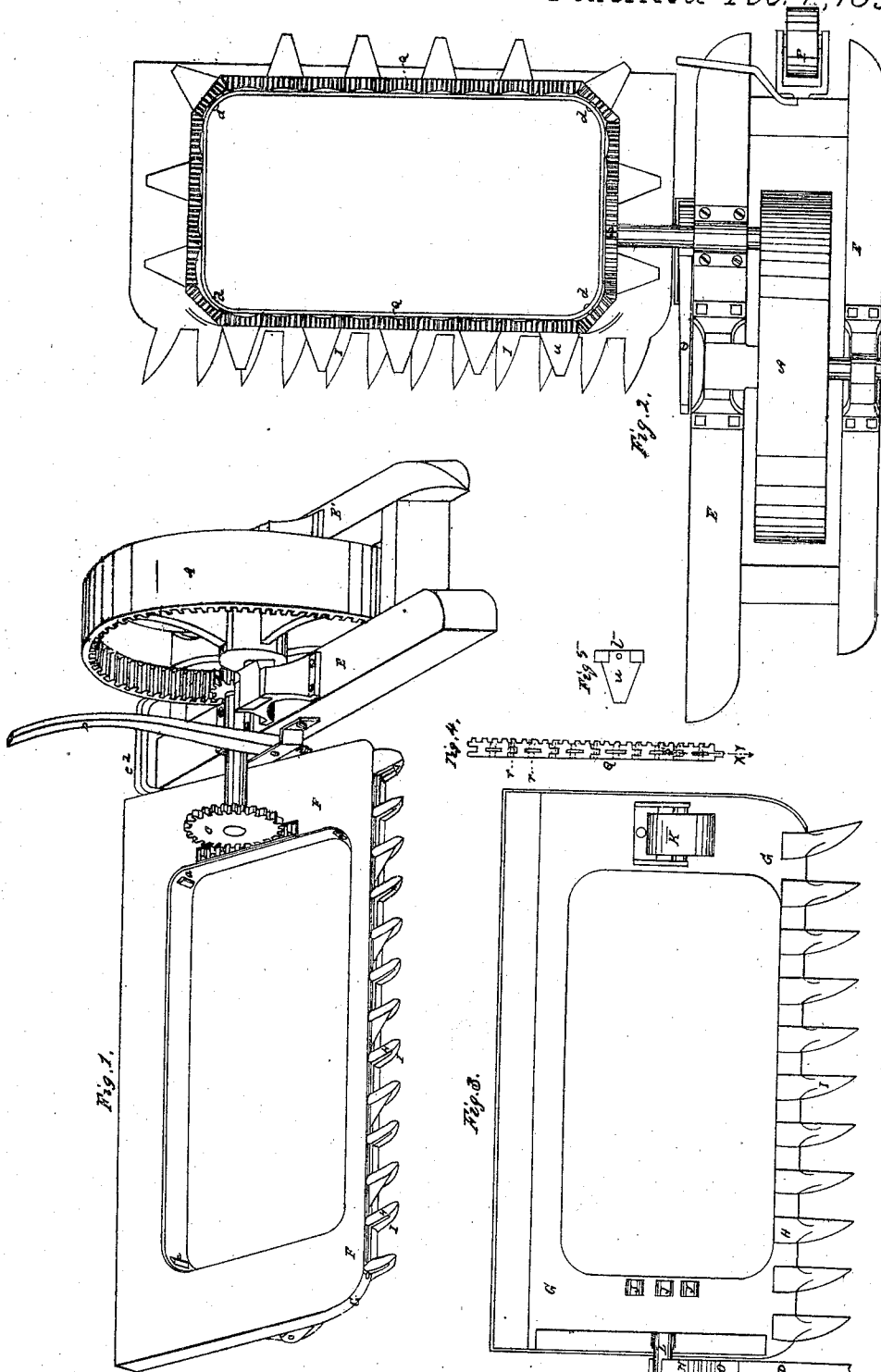


Persons & Cone.

Mower.

N^o 22824

Patented Feb. 1, 1859.



Witnesses

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UNITED STATES PATENT OFFICE.

SYLVESTER PERSONS AND ALFRED M. CONE, OF PANAMA, NEW YORK.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 22,824, dated February 1, 1859.

To all whom it may concern:

Be it known that we, SYLVESTER PERSONS and ALFRED M. CONE, of Panama, in the county of Chautauqua and State of New York, have invented new and useful Improvements in Grain and Grass Harvesters; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure I is a perspective of the machine. Fig. II is a plan of the same, the cap or upper part of the cutter-frame being removed in order to show the chain cutter more distinctly. Fig. III is a bottom plan of the cutter-frame. Fig. IV is an elevation of several links of the cog-chain. Fig. V is a section through the line *xy*, Fig. IV, and shows the form of the cutter-tooth and the manner of fastening it to the chain.

Letters of like name and kind refer to like parts in each of the figures.

A is the driving-wheel; B, pinion; C, multiplying-wheel; D, lever. On the lower end of this lever is a pinion, which meshes in with a pinion on the cutter-frame for the purpose of raising and lowering the cutters. E, main frame; F and G, cutter-frame, F being the upper part and G the lower part. These two parts, when put together, form a case or frame for the support and protection of the cutters.

Whatever may be the details of the construction of the cutter-frame, it must possess the two features of adjustability for reaping and vibration in the direction; so that the forward part, which slides upon the ground in mowing, will conform to the uneven surface of the ground. These two features are produced by swinging the cutter-frame upon the axle L, (giving a preponderance of weight forward of the axle,) and making the frame sufficiently wide, so that the forward part, which sustains the guard-fingers, will slide upon the ground when mowing, while the rear part is curved sufficiently high to pass over the mown grass.

H and I are guard-fingers, made in two parts, H being the upper and I the lower half. The upper half of the guard is made fast to the cap-piece or upper part of the cutter-frame. The lower half of the guard is made fast to the lower part of the cutter-frame. When the two

parts of the cutter-frame are fastened together, which may be done by screws or bolts, the two parts of the guards will come together, leaving a slot between them for the free passage of the cutters. The guards may be fastened together at the points by means of a screw, rivet, or otherwise.

*e*² is a bent bar of iron placed upon the main frame, and serves as a brace to the cutter-frame; *d*, friction-rollers to carry the cutter-chain around the corners; J J J, Fig. III, friction-rollers which support the cog-chain under the multiplying-wheel *c*, and which hold the chain in gear with the multiplying-wheel through all the variations caused by the vibrations of the cutter-frame; K, caster-wheel for supporting and carrying the outer end of the cutter-frame; L, shaft or axle which connects the cutter-frame to the main frame of the machine. This should be so placed upon the cutter-frame as to give a preponderance of weight forward of the axle, so that the forward part of the frame, to which the guard-fingers are connected, will bear upon the ground and conform to the uneven surface thereof; M, journal-box.

N is a segment on shaft L, and O is a segment on the end of lever D, by means of which the cutters are raised and lowered in an arc of a circle of which L is the center; P, Fig. II, caster-wheel for supporting the rear end of the main frame; Q, cutter-chain. This chain is made in links, with cogs thereon, and the links are fastened together by means of pins or rivets, as represented by the dotted lines *r r*, Fig. IV. A mortise is made through the link, and a tenon is made on the base of the cutter-tooth, which fits the mortise in the link, as shown at *s*. A rivet passes through the link, and also through the tenon of the cutter-tooth, as shown at *t*, Fig. V, the shoulders of the tooth resting against the link, and thus the tooth is held firmly in its place. W, cutter-tooth.

The chain cutters are arranged upon the cutter-frame (the cutter-frame being constructed wide enough for the purpose) so that the cutters will rotate around an area sufficiently large to allow the cut grain to fall upon the platform upon the area and the cut grass to fall upon the ground within the area encircled by the cutters. By this arrangement we are enabled to make the front part of the frame, which sup-

ports the guard-fingers, so narrow and free that the cut grain or grass cannot lodge thereon, and so that the cutters can free themselves and prevent clogging.

We contemplate using appropriate dividers at the outer and inner end of the cutter-frame, so that when the machine is used for cutting grain (a removable platform being also used) the grain will be guided onto the platform, and when the machine is used for cutting grass the platform can be removed and the cut grass will fall within the area inclosed by the cutters.

We claim—

1. Arranging and operating the chain cutters upon an adjustable and vibrating cutter-frame, in the manner and for the purposes substantially as described.

2. The arrangement of two or more rollers, J J, relatively to the chain cutters, multiplying-wheel c, and adjustable vibrating cutter-frame, so that the rollers will form a bearing for the chain cutters and support and hold the chain in gear with the multiplying-wheel, whatever may be the position of the adjustable vibrating cutter-frame, in passing over unlevel surfaces, substantially as herein set forth.

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Witnesses:

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