DENNIS A. KELLOGG.

IMPROVED HARVESTER

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PATENTED JUL 41871

FIG. I.

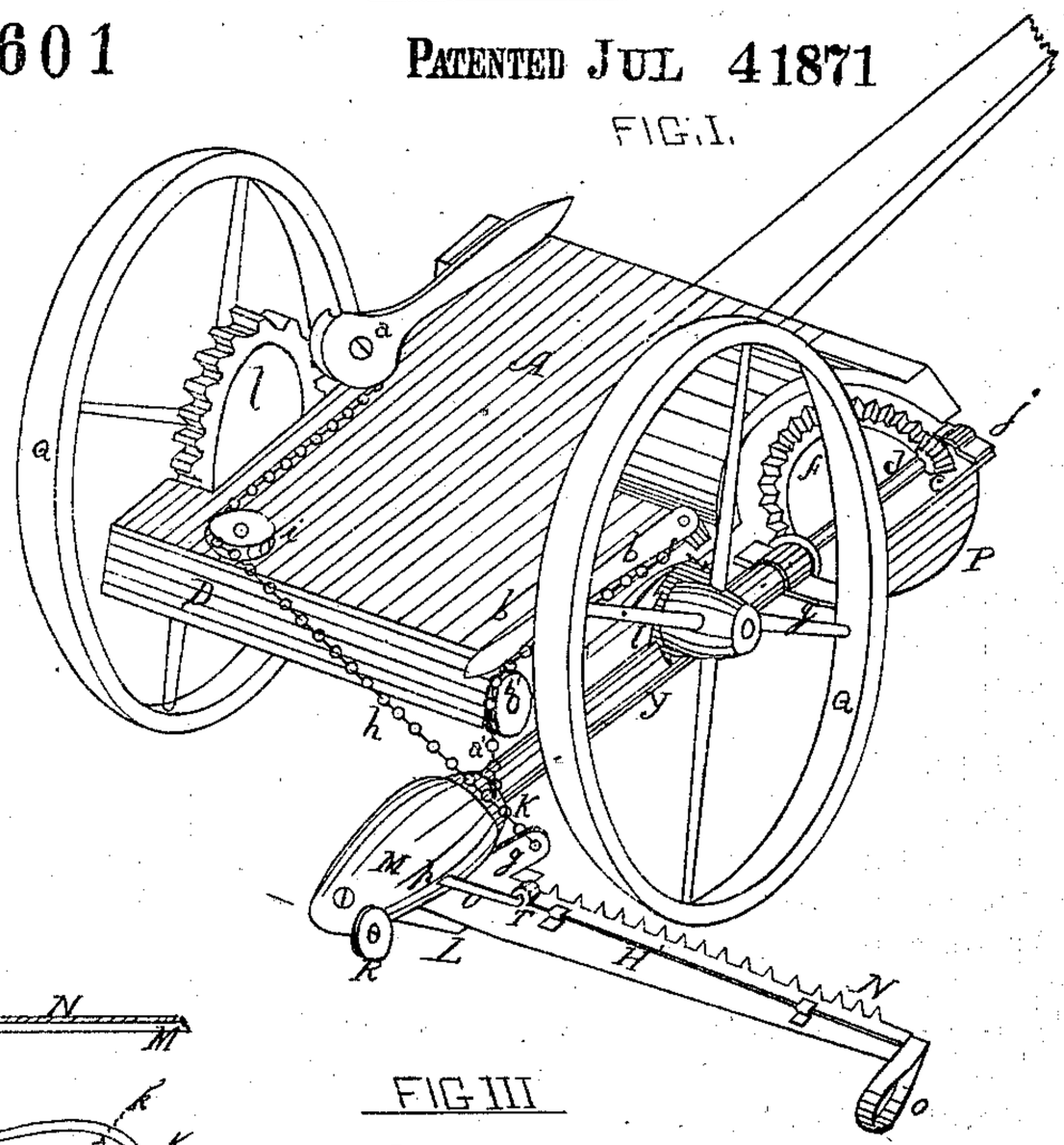



FIG IV

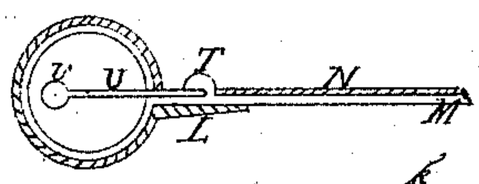



FIG III

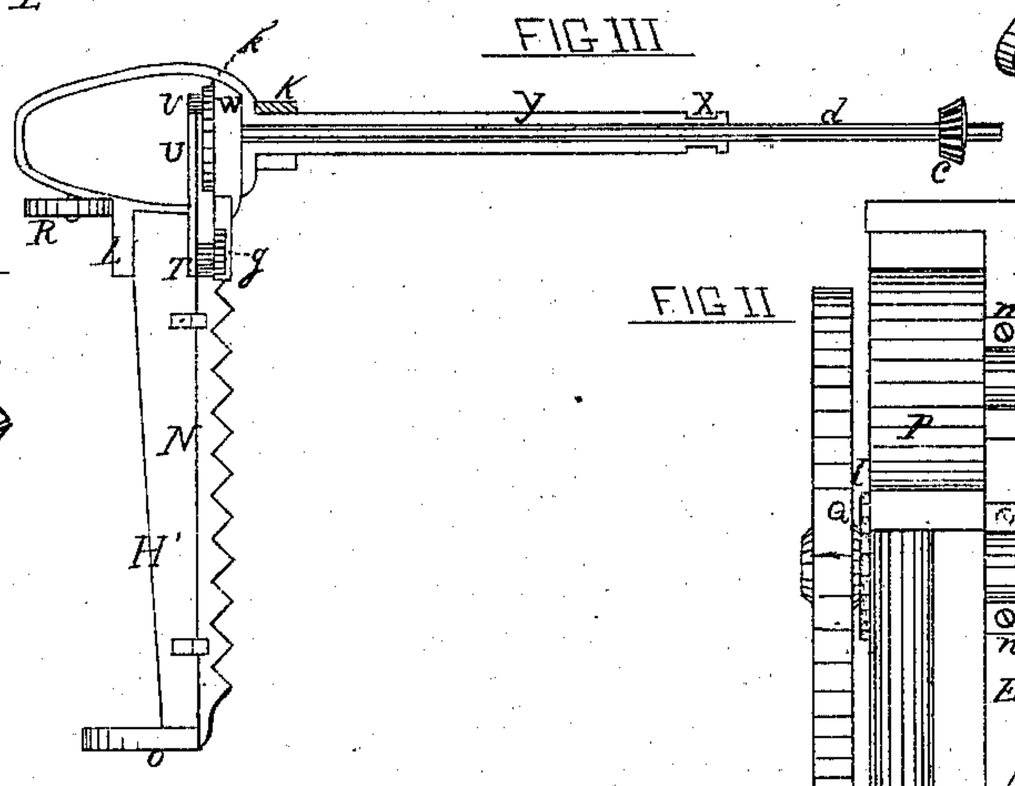



FIG. V.

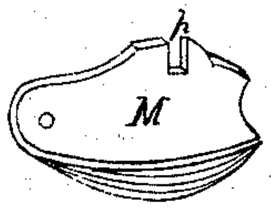
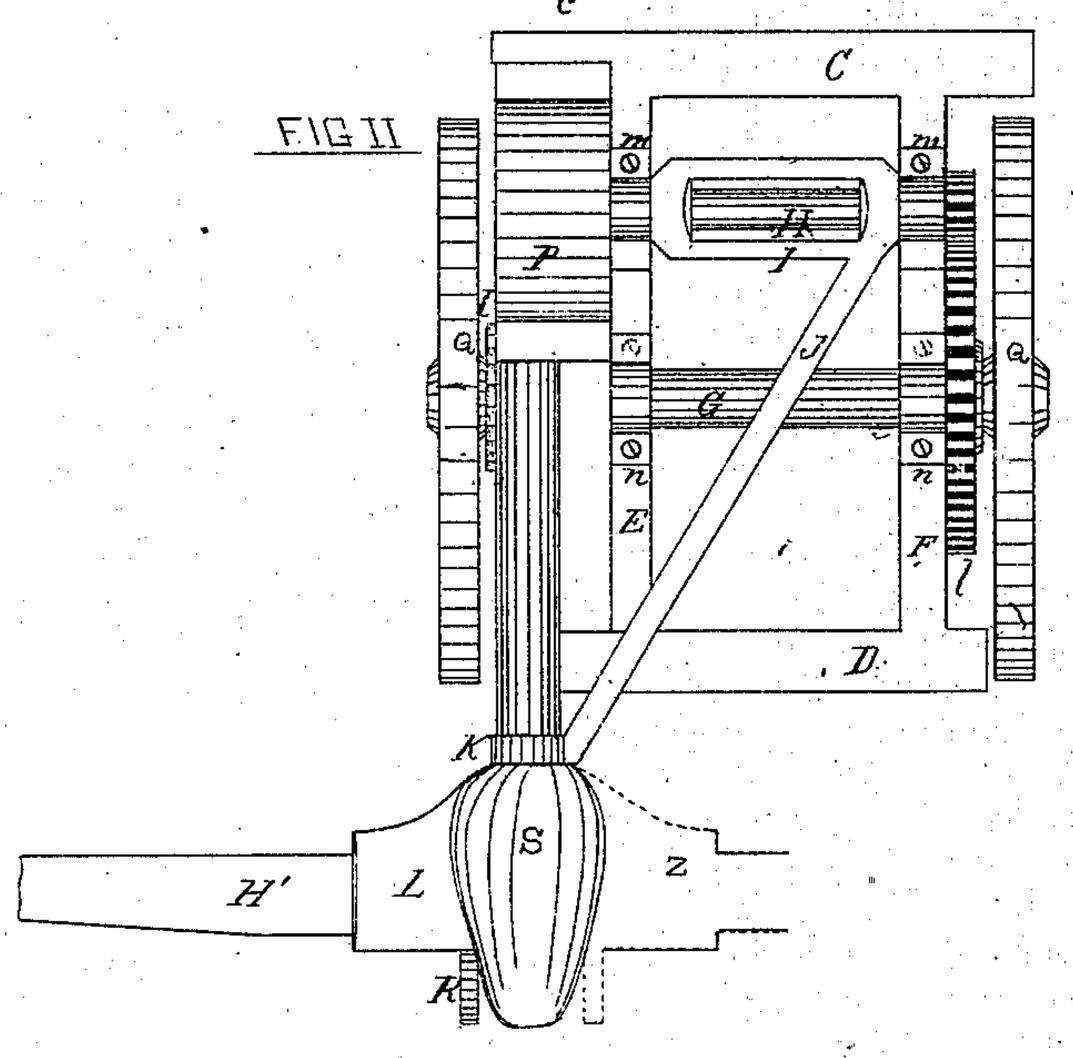



FIG II




WITNESSES

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DENNIS A. KELLOGG, OF VALPARAISO, INDIANA.

## IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 116,601, dated July 4, 1871.

*To all whom it may concern:*

Be it known that I, DENNIS A. KELLOG, of Valparaiso, in the county of Porter and State of Indiana, have invented an Improvement in Harvesters, of which the following is a specification:

The object of the present invention is to provide better means for holding and operating the sickle-bar; and its nature consists in the novel construction and arrangement of a long sleeve which nearly incloses the drive-shaft, and rotates independently of said shaft in suitable boxes, the lower end of the sleeve terminating in a two-part case for supporting and protecting the gearing which operates the sickle-bar, as the whole is hereinafter fully described and shown.

In the drawing, Figure 1 is a perspective representation of a harvester with my improvement attached; Fig. 2, an inverted view of the same; Fig. 3, the sleeve, drive-shaft, sickle-bar, and sickle-guard, the top part of the two-part case being removed to show the gearing inside; Fig. 4, a transverse section of the two-part case, also showing the sickle-guard and other parts appertaining thereto; Fig. 5, a perspective view of the under side of the upper part of the gearing-case.

A D C E F represent the frame-work of the harvester mounted on wheels Q Q in the ordinary manner, no particular form of frame being required, only so that it be made to support the gearing hereinafter described. This gearing is similar to that used in other harvesters, consisting of a drive-wheel, *l*, fastened to the axle-tree G, a pinion, *e*, and bevel-wheel *f* fastened to a shaft, H, the bevel-wheel *f* driving the pinion *e* attached to the upper end of the drive-shaft *d*. This shaft is provided with a suitable bearing in the upper end of a rock-box, P, which is hung to the shaft H, and with a bearing in the case M S, as shown, by box W. Y represents a long sleeve, which nearly covers the shaft *d*, and is arranged to turn independently of said shaft by means of a box, *q*, attached to the lower end of the rock-box P, and by means of the box W aforesaid, a collar, X, being formed on the upper end of the sleeve to hold it in place. The sleeve Y terminates at its lower end in the lower part S of a gearing-case, which is provided with a broad seat, L, to support the sickle-guard H′, said seat holding the guard firmly in place so as to withstand any ordinary strain to which it may be subjected. The lower end of the shaft *d* supports a crank-wheel, *k*, which, by means of a crank, U, pivoted to said wheel at V, drives the sickle-bar N in the usual manner. To protect the gearing *k* U a cap, M, is so formed as to fit the part S, leaving place *p* for the crank U to work. By this means the shaft *d* is not disturbed by turning the sickle-guard H′ into position for use, as shown at Fig. 1, or by turning it over, as shown by dotted lines Z, Fig. 2, while at the same time the leverage secured by the long sleeve Y allows the sickle-bar to be readily raised and lowered when the harvester has a forward movement, which is not the case when the sickle-guard is hung to the shaft *d*, as is customary. The means for raising and lowering the sickle consists of a chain, *a′*, attached to band K, run over a pulley, *b′*, and fastened to a lever, *b*, and the means for turning the outer end of the sickle upward or over back consists of a chain, *h*, (fastened to a lever, *g*, Figs. 1, 3,) run over a pulley, *i*, and attached to a lever, *a*, the lever *b* being brought forward to raise the sleeve and the lever *a* brought backward to raise the sickle.

I claim—

In combination with the rocking tubular drag-bar, as described, having the crank-shaft passing through it, the shoe S and the covering-plate M, constructed as set forth.

DENNIS A. KELLOGG.

Witnesses:

ALFRED W. KELLOGG,

JAS. WHEELER.