

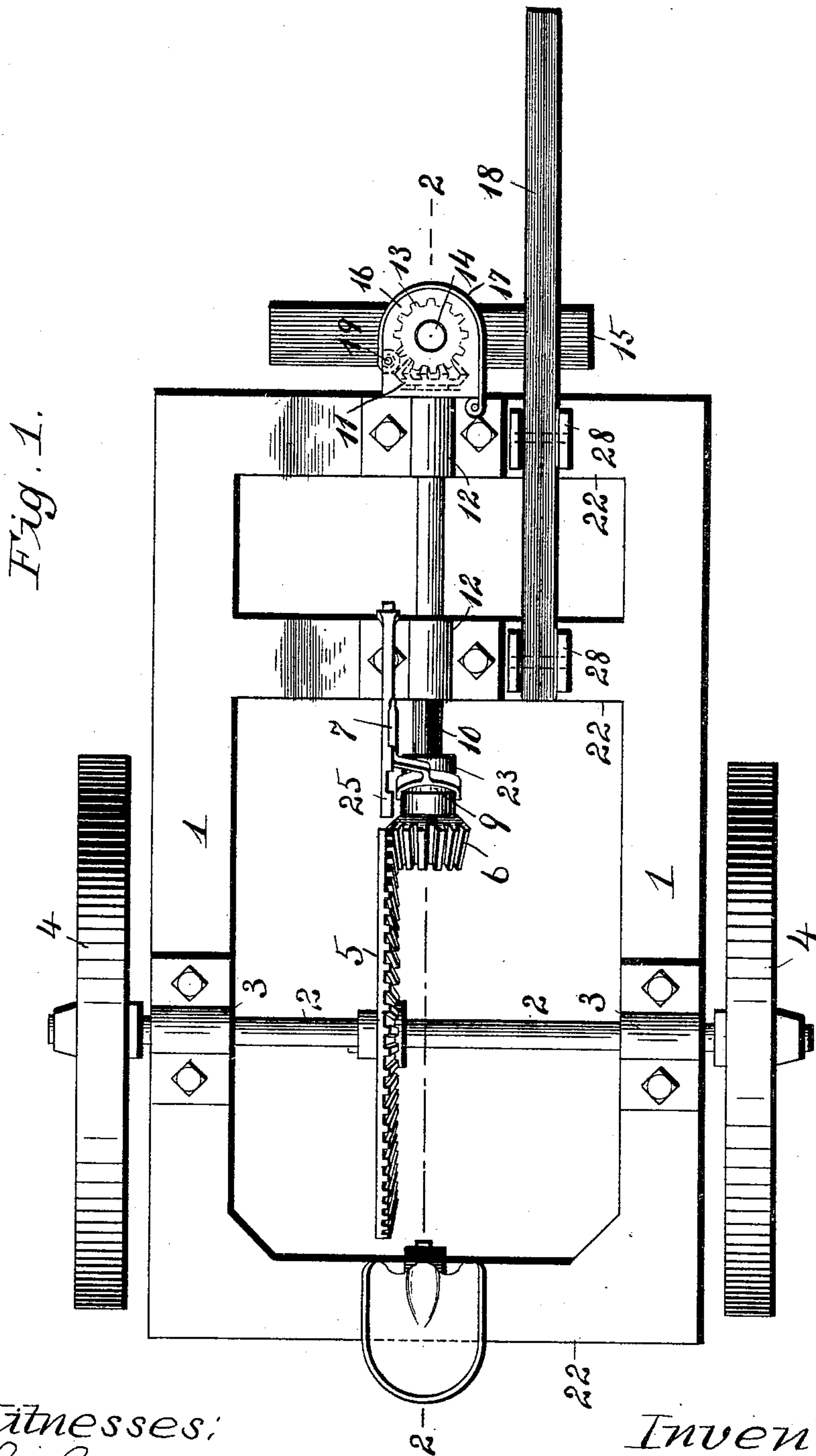
(No Model.)

2 Sheets—Sheet 1.

J. W. ROACH.  
CORNSTALK CUTTER.

No. 496,003.

Patented Apr. 25, 1893.



Witnesses:  
F. G. Fishers  
H. O. Price

Inventor:  
J. W. Roach  
By Higdon & Higdon  
Attys.

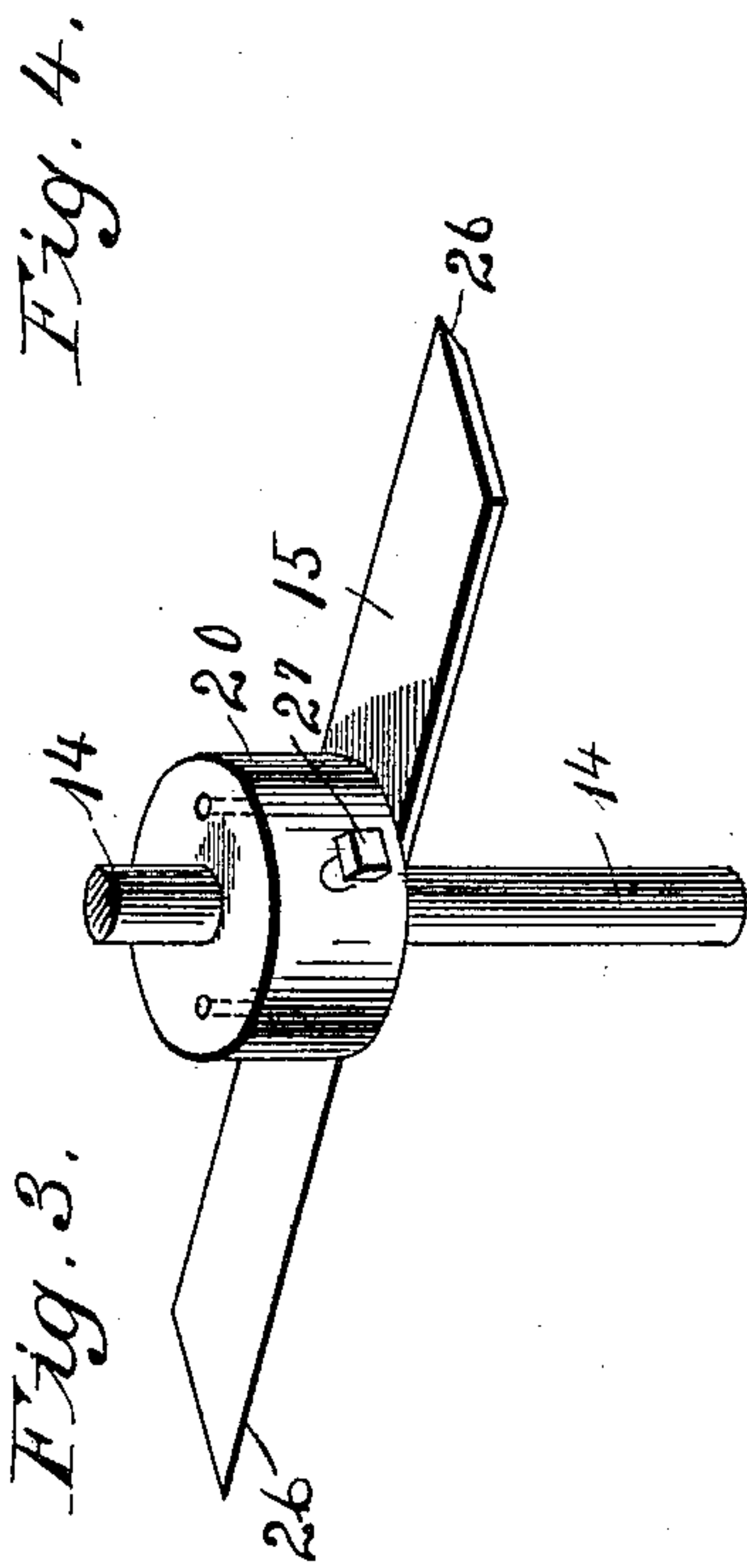
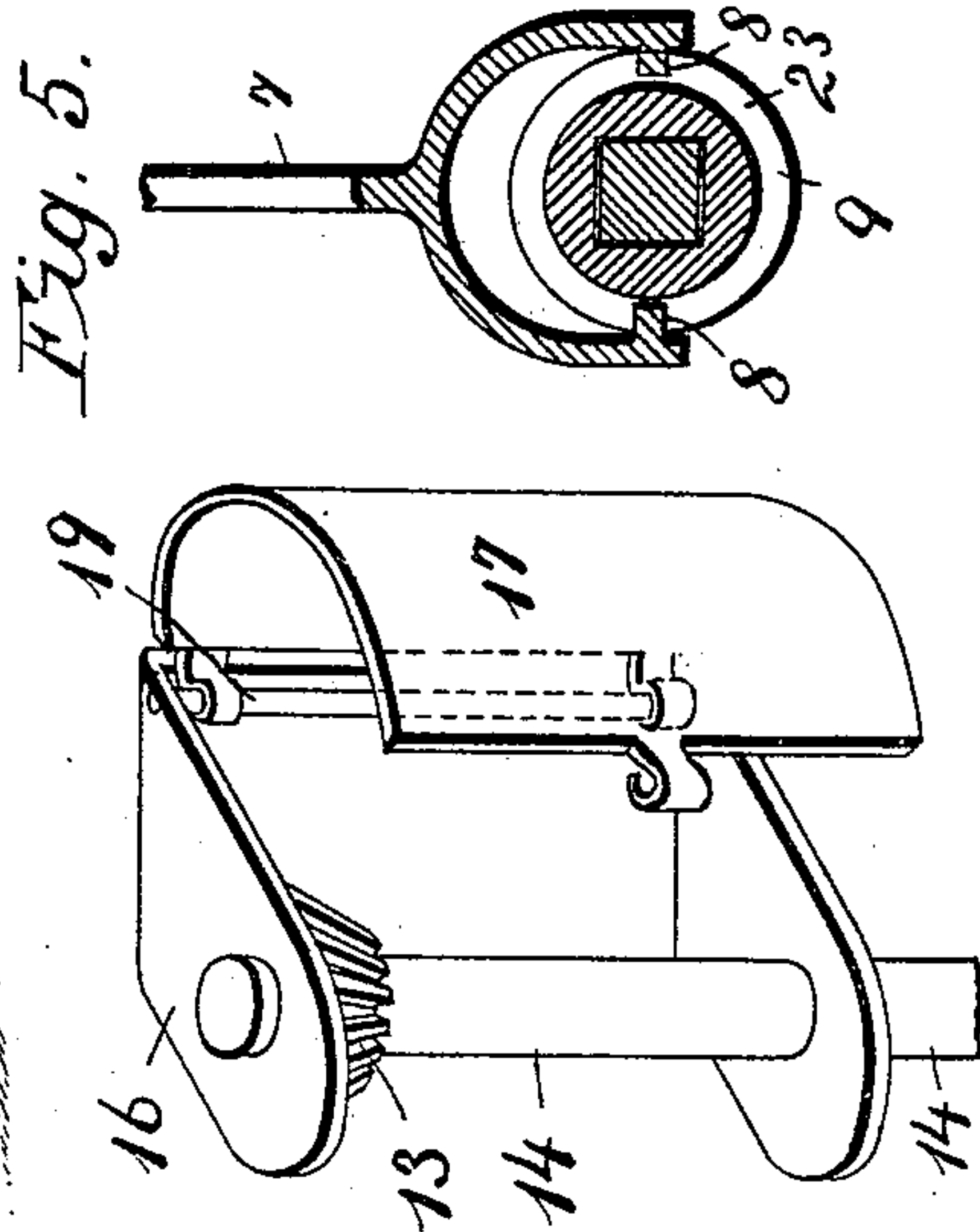
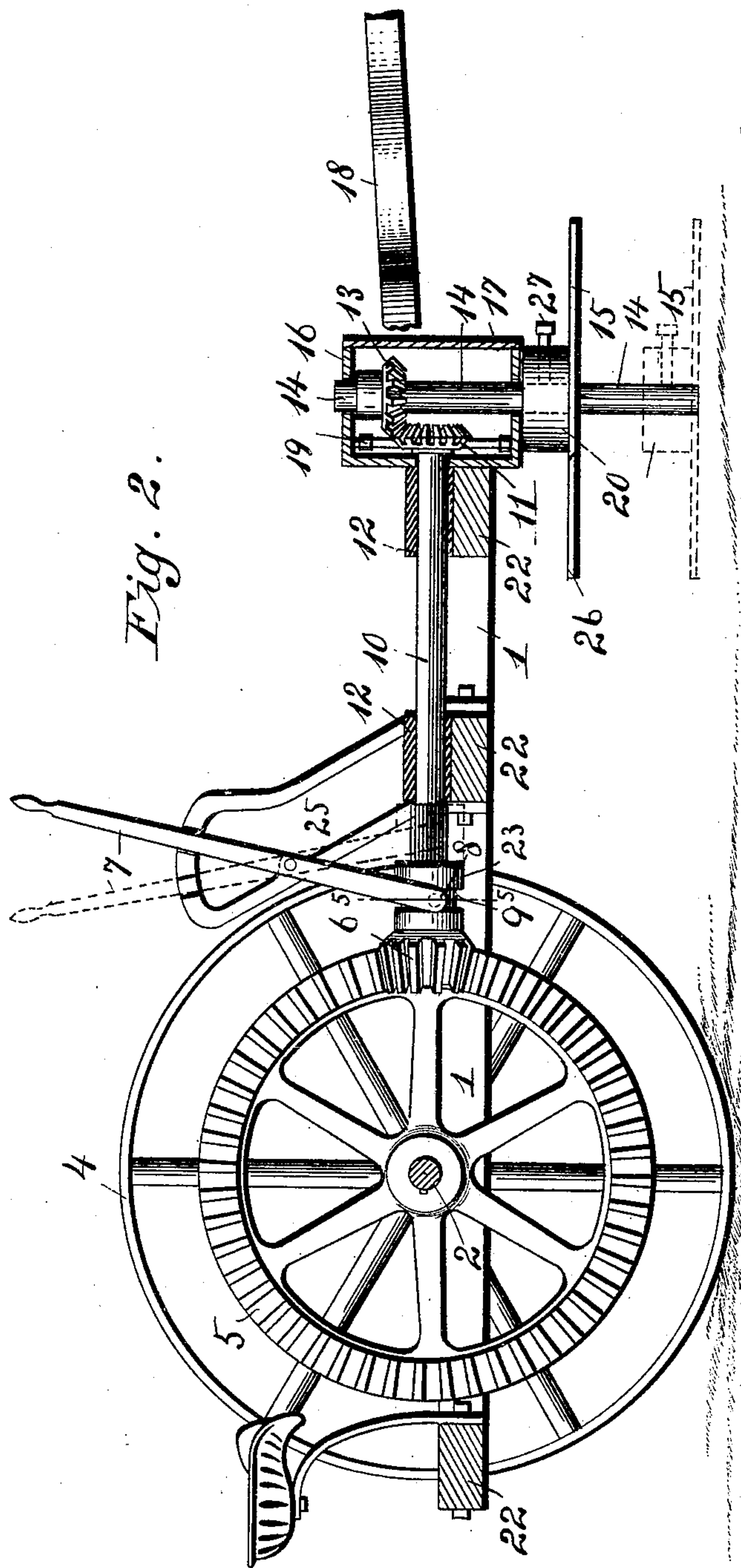
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# UNITED STATES PATENT OFFICE.

JOHN W. ROACH, OF PHILLIPSBURG, KANSAS.

## CORNSTALK-CUTTER.

SPECIFICATION forming part of Letters Patent No. 496,003, dated April 25, 1893.

Application filed August 22, 1892. Serial No. 443,782. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. ROACH, of Phillipsburg, Phillips county, Kansas, have invented certain new and useful Improvements in Cornstalk-Cutters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

The object of my invention is to provide a practical machine of economical construction adapted to cut corn-stalks, &c., and to provide means for throwing the cutting mechanism in and out of gear while at work or off the field.

With the above objects in view, the invention consists in the mechanism hereinafter described and set forth in the claims.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings in which:

Figure 1 represents a plan view of a stalk cutter embodying my invention. Fig. 2 is a longitudinal section taken on line 2—2 of Fig. 1. Fig. 3 is a detail in perspective of the cutting-knife, and disk to which it is secured. Fig. 4 is a detached view in perspective of the casing which forms part of my invention, and Fig. 5 is a sectional detail on line 5—5 of Fig. 2.

Like numerals of reference indicate corresponding parts.

The frame work of the machine consists of two longitudinally and horizontally arranged parallel bars 1, which are connected at their rear ends, and also at a slight distance from their forward ends, by transversely arranged bars 22. This frame work is supported by bearings 3, which engage over the axle 2 of the wheels 4.

Rigidly secured to shaft 2 at a point about half way between the carrying wheels, is a master-wheel 5 which drives a beveled pinion-wheel 6, the same being loosely mounted on shaft 10 which is journaled in bearings 12 secured to the frame work by bolts or in any other suitable manner. In cross section the rear end portion of shaft 10 is made rectangular, over which the pinion 6 is free to slide back and forth for the purpose of engaging or disengaging with the master-wheel 5. This result is obtained by means of a hand-lever 7 which is pivoted to one arm or leg of a vertically arranged sector 25; and has its lower end

bifurcated and provided with inward projecting lugs 8 which engage in groove 9 on the hub of pinion 6. Rigidly fixed to the forward end of shaft 10, is a beveled gear 11 that engages with and operates a similar gear 13, made fast to a vertical shaft 14 which carries a vertically adjustable shaft above the cutting knife 15 near its lower end. Said cutting knife 15 consists of a single straight blade horizontally arranged and having at diagonally opposite sides of each end portion cutting edges 26, and is secured to disk 20 which is removably connected to the lower end of vertical shaft 14 by means of set screw 27.

16 indicates a casing, the top and bottom of which form bearings for the vertical shaft 14; and is provided with a door 17 in its vertical wall which is hinged at 19 for the purpose of gaining access to the bevel gears 11 and 13 respectively.

18 designates the tongue by means of which the machine is drawn forward; the rear end of the tongue is secured between the vertical ears of the brackets 28, secured to the two forward transverse bars 22 by means of lugs 28.

The operation of the machine is as follows: The pinion 6 is thrown in gear with the master-wheel 5 by means of hand-lever 7, and as the machine moves forward the aforesaid master-wheel causes the pinion 6 to revolve, causing the revolution of the shaft 10 which causes the beveled gear 11, to revolve and communicate motion to the cutting knife 15 by means of beveled gear 13 and vertical shaft 14. While this operation is in progress casing 16 acts as a guard for bevel gears 11 and 13 by preventing them from becoming choked by stubble, weeds, &c. Vertical shaft 14 is extended below the bottom of the casing 16 in order that the cutting-knife 15 may be adjusted to the desired height at which the stalks are to be severed.

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

1. In a stalk cutting machine, the combination of a horizontal frame-work, supported by the axle thereof, a master gear, located midway of said axle, a longitudinally arranged shaft mounted in bearings upon the frame-work, and having at its opposite ends beveled gear pinions, with a vertically erected cylin-

drical casing secured to the forward end of the machine, having a door hinged in the vertical wall thereof, and a vertically arranged shaft, journaled in the horizontal top and bottom walls of said casing, and having a beveled gear near its upper end, meshing with the beveled gear or the forward end of the longitudinally arranged shaft, substantially as described.

10 2. In a stalk cutting machine, a vertically erected cylindrical casing located at its forward end, a shaft vertically journaled in said

casing, having a beveled gear pinion near its upper end, and a sleeve vertically adjustable upon said shaft below the casing, and carrying a horizontally arranged cutting knife, substantially as described. 15

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

JOHN W. ROACH.

Witnesses:

HARRIET E. PRICE,  
JOHN E. HIGDON.