2 Sheets—Sheet 1.

J. FITZGERALD.

Thrashing Machine.

No. 4,636. Patented July 14, 1846.

Fig. 1

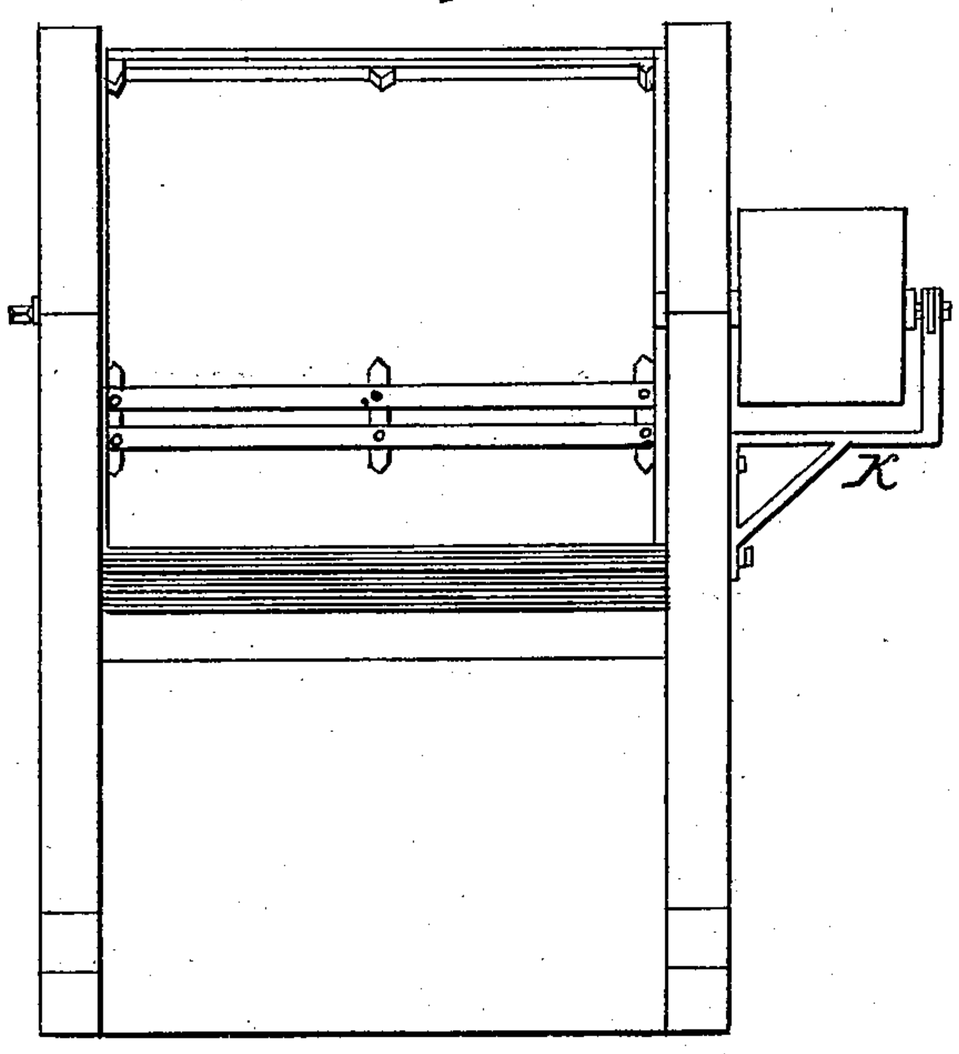


Fig. 3

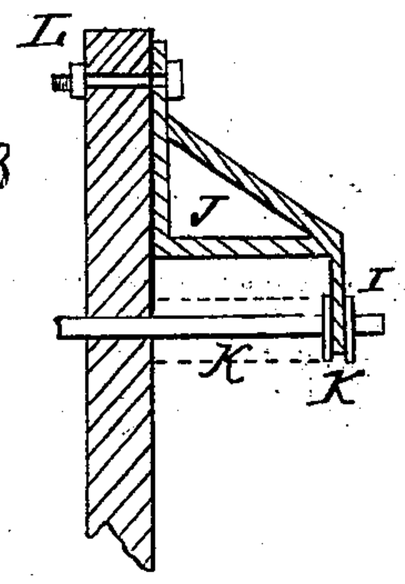


Fig. 3½

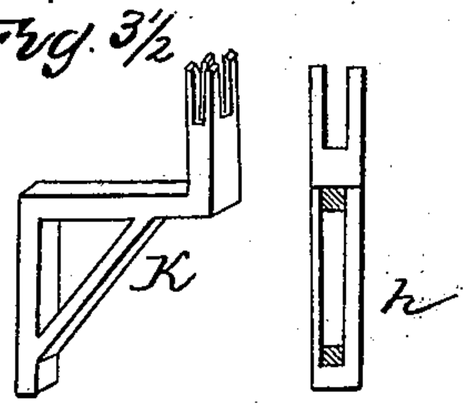


Fig. 2

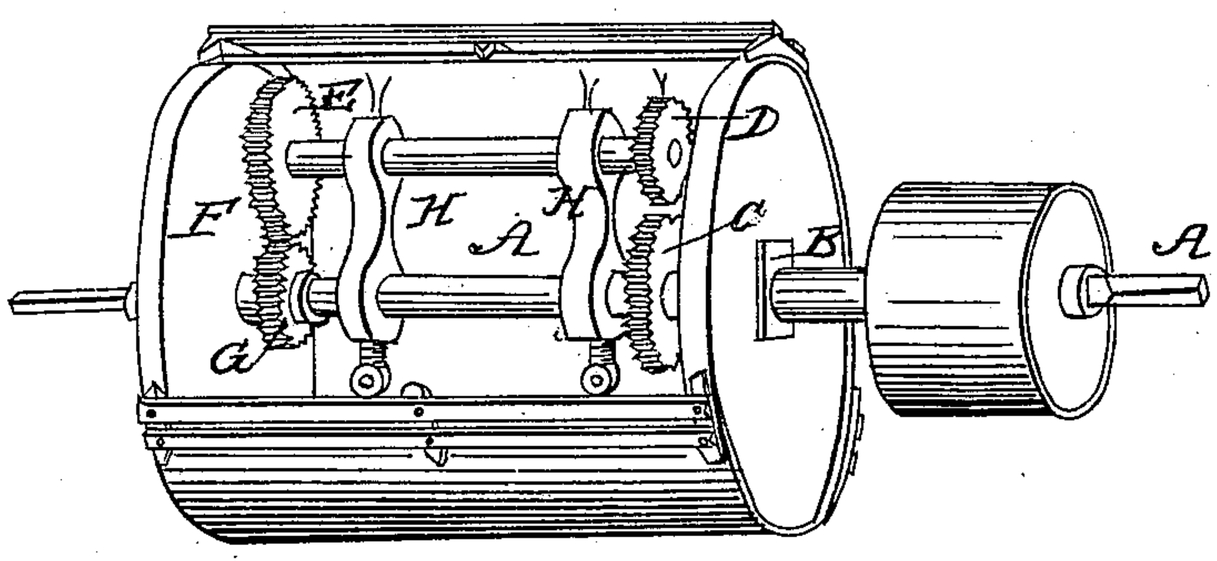
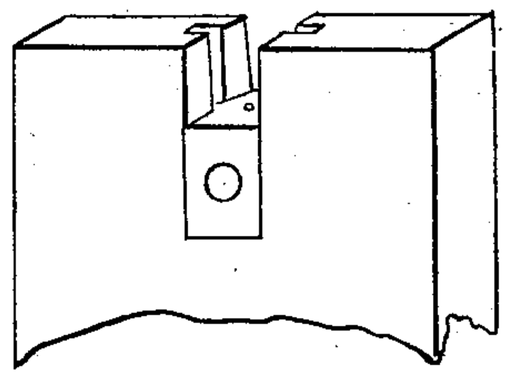


Fig. 9



2 Sheets—Sheet 2.

J. FITZGERALD.

Thrashing Machine.

No. 4,636. Patented July 14, 1846.

Fig. 4.

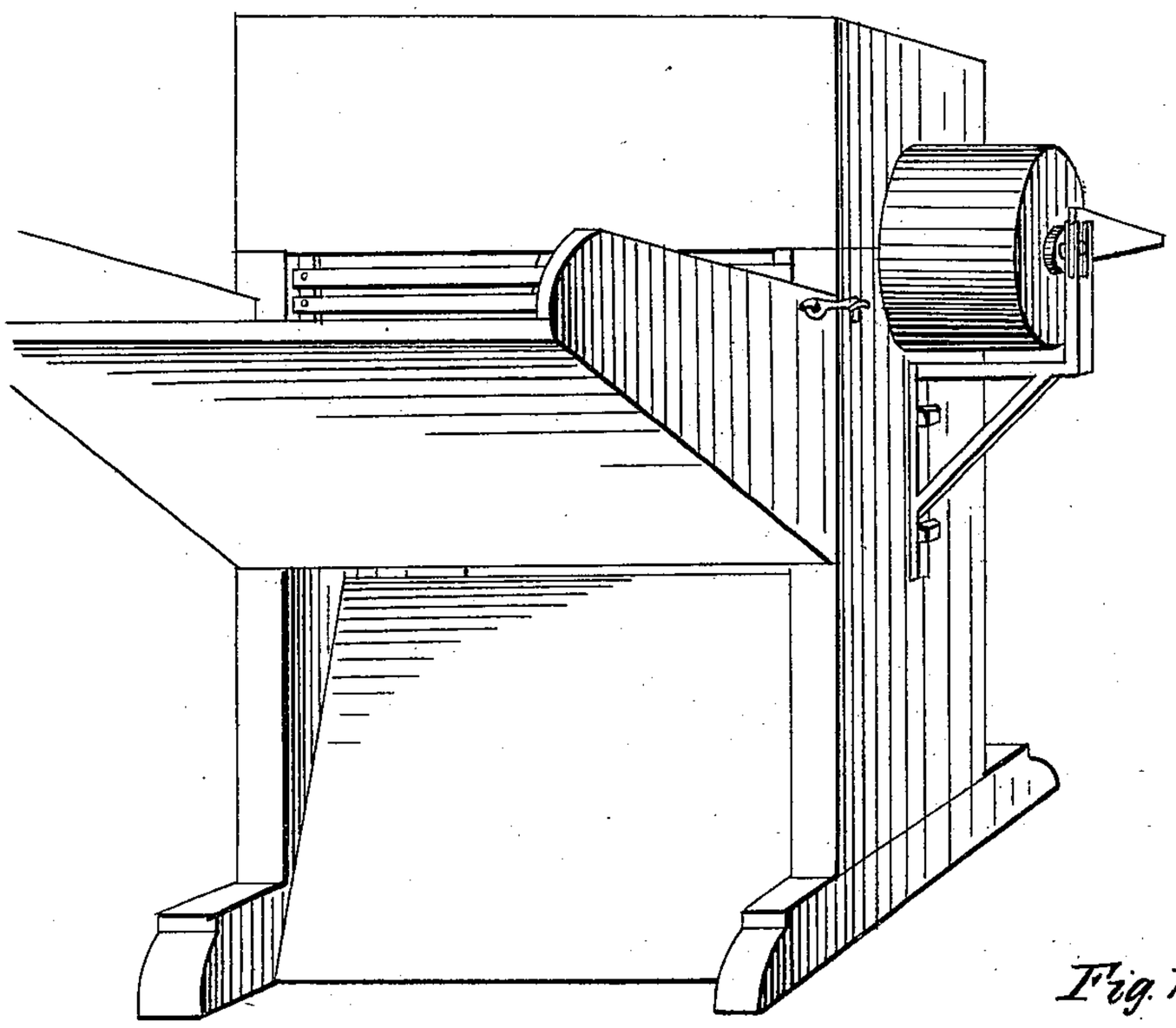


Fig. 7

Fig. 5

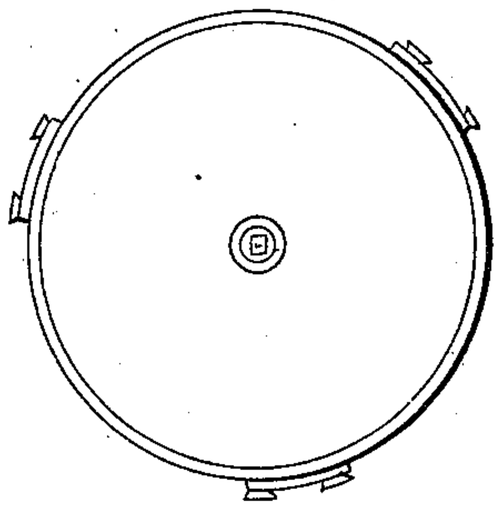


Fig. 6

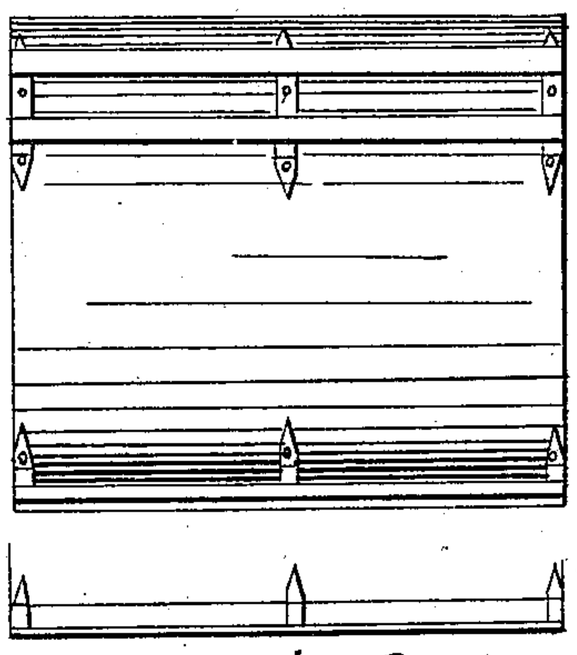


Fig. 8

UNITED STATES PATENT OFFICE.

JESSE FITZGERALD, OF NEW YORK, N. Y.

IMPROVEMENT IN THRASHING-MACHINES.

Specification forming part of Letters Patent No. **4,636,** dated July 14, 1846.

To all whom it may concern:

Be it known that I, JESSE FITZGERALD, of the city, county, and State of New York, have invented a new and useful Improvement in Thrashing-Machines; and I hereby declare that the following is a full and exact description.

To enable others to make and use my improvement, I proceed to describe its construction and operation, reference being had to the drawings hereunto annexed, and making part of this specification.

Figure 1 is an elevation of the front of the machine; Fig. 2, the cylinder in perspective laid open; Fig. 3, a diagram showing the lever I, in which the square end of the cylinder-shaft is set; Fig. 4, a perspective of the machine; Fig. 5, an end of the cylinder with the improved beaters; Fig. 6, an elevation of the same; Fig. 7, one of the fids on which the beaters are laid; Fig. 8, an edge view of the beaters, and Fig. 9 a diagram showing the movable box of the cylinder-shaft.

The cylinder is made of two heads and a covering of plate-iron, on which are riveted the beaters. These are cast of malleable iron, two beaters placed on three fids, Fig. 7, being cast together. The fids are wedge-shaped pieces to set the beaters clear—say, one-half an inch—from the surface of the cylinder, in order to let the air pass through. The rivets which hold on the beaters are put through the fids. The beaters are about a quarter of an inch thick and an inch wide.

The invisible gearing which characterizes this machine is thus made: On the shaft A of the cylinder there is a collar B, on which are set the pulley and (inside the cylinder) the first spur-wheel of the gearing C. Fixed firm on the shaft A (which does not revolve) is the frame or fixture H, across which at top is a shaft containing the multiplying-wheels D and E, the latter connecting with the pinion F on a collar G at the other end of the cylinder. This collar G is fixed to the cylinder and revolves on the shaft A. The journals and the wheels of D and E are oiled through holes in the outside of the cylinder. By this gear a larger pulley may be used or much higher motion obtained. The shaft A is held firm by fixing the square end outside the pulley into the lever I, Fig. 3. This lever is hinged on the band side of the machine by a bolt L, and the other end, in which is fixed the square end of the shaft A, sits in a slot made in the top of the support K. (See Fig. 3½.) This lever holds the pulley firm against the strain of the band and allows it to rise when an undue quantity of grain goes into the machine. The other end of the shaft runs in a movable box made to slide up and down. (See Fig. 9.)

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The application to cylinders of the combination of the gearing-wheels seen in Fig. 2 with the collars B and G, in the manner herein set forth.

2. The making the beaters to work edgewise and to set out from the cylinder to avoid friction from the air, in the manner described.

Given under my hand this 9th day of February, 1846, at the city of New York.

JESSE FITZGERALD.

In presence of—
OWEN G. WARREN,
IRWIN DETHERIDGE.