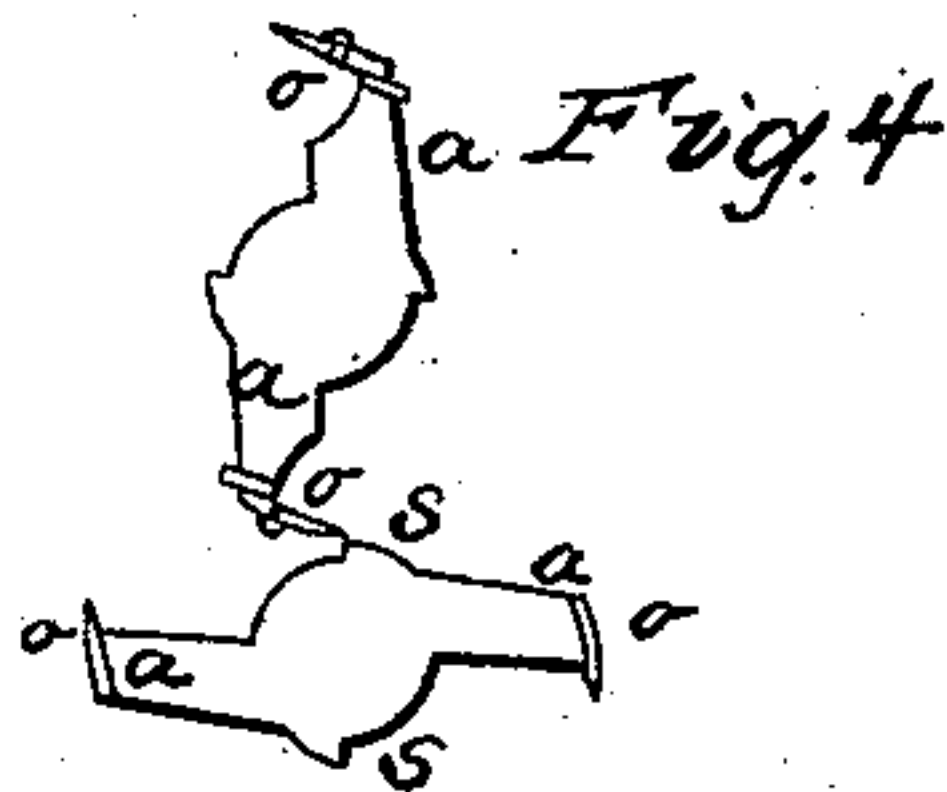
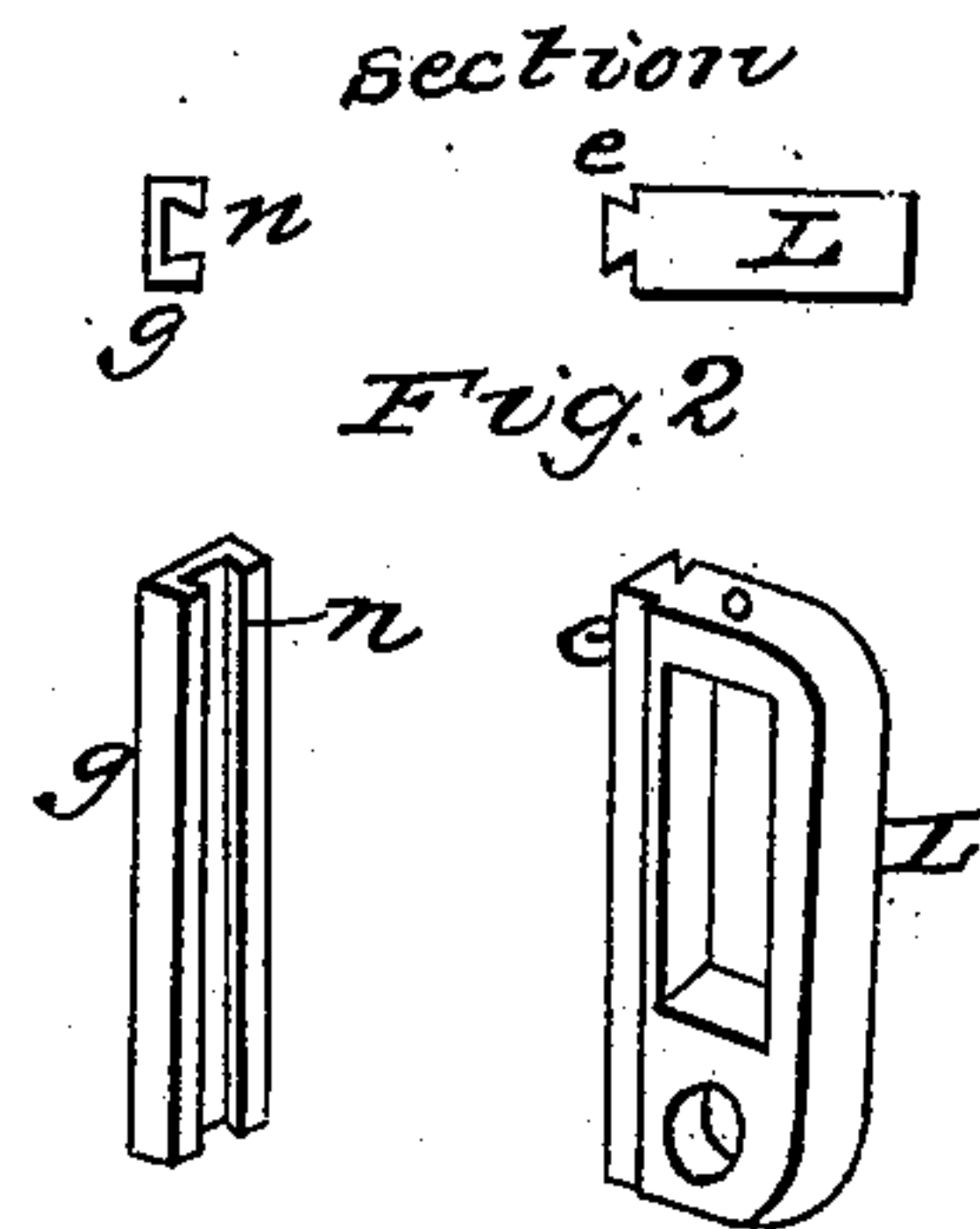
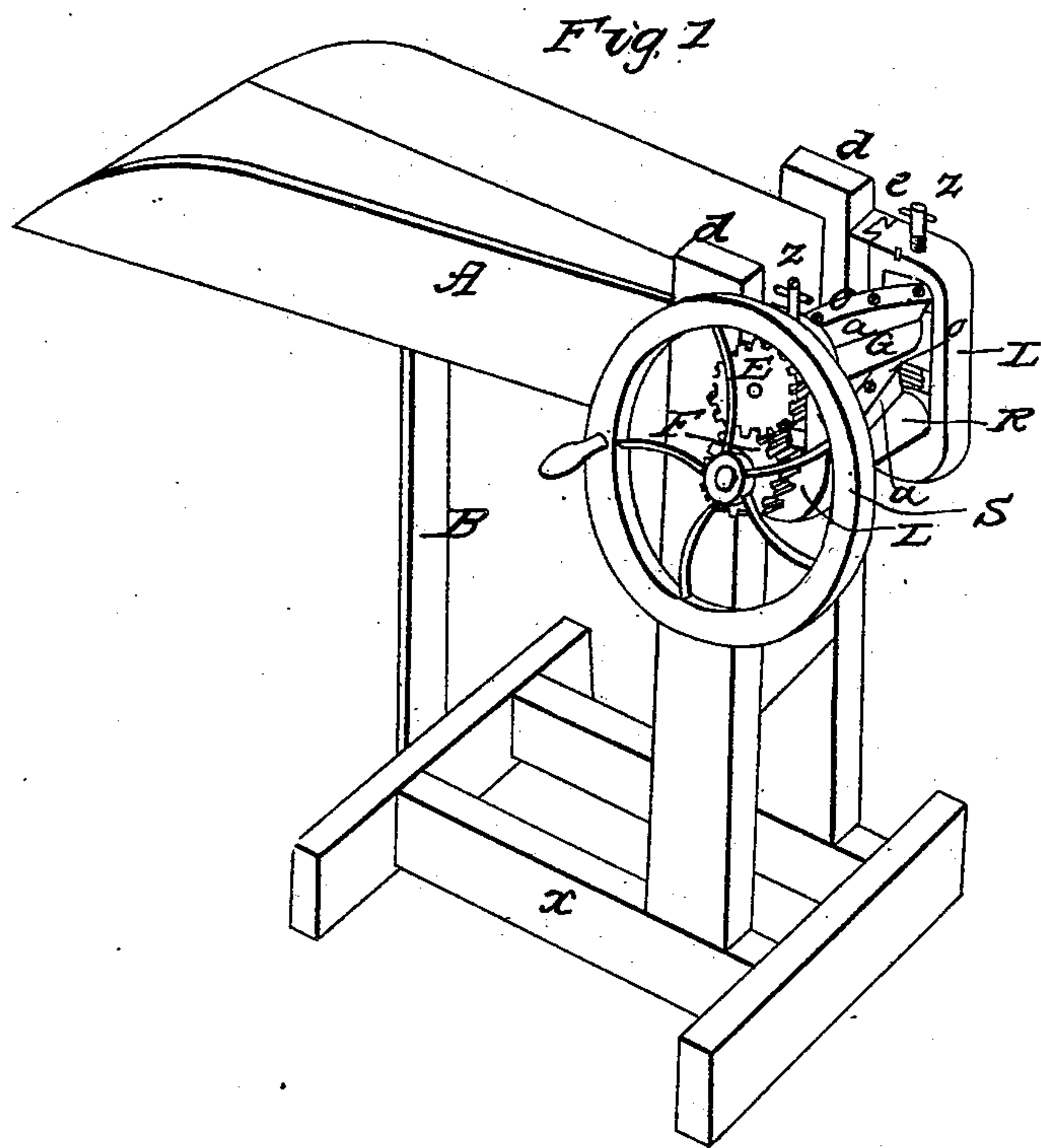


J. G. PERRY.
Straw Cutter,

No. 39,241.

Patented July 14, 1863.



witnesses
Asa F. Gardner
J. H. Perry.

Inventor
John G. Perry

UNITED STATES PATENT OFFICE.

JOHN G. PERRY, OF SOUTH KINGSTON, RHODE ISLAND.

IMPROVEMENT IN STRAW-CUTTERS.

Specification forming part of Letters Patent No. 39,241, dated July 14, 1863.

To all whom it may concern:

Be it known that I, JOHN G. PERRY, of South Kingston, in the county of Washington, in the State of Rhode Island, have invented certain Improvements in Machines for Cutting Hay, Straw, and other Fodder; and I do hereby declare that the following is a full and correct description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In all the figures the same letters refer to similar parts.

In these drawings, Figure 1 is a perspective view of the machine. Fig. 2 shows the manner of attaching the cutting-rolls to the frame. Fig. 3 shows a cross-section of the cutting-rolls as they are in the model. Fig. 4 represents a cross-section of two cutting rolls having more than one knife each.

The construction of my improved hay-cutter is as follows: A taper horizontal trough, A, is secured to two standards, *d*, at one end, and supported by a standard, B, underneath near the middle, the whole standing upon a base-frame, *x*. The shape and construction of this part of the machine is not so material, but may be varied in many ways. Across the two standards *d d* are placed two rolls, G R, in such a position as to receive and cut the contents of the trough A. These rolls have one or more projecting flanges, *a a*, upon each, to which are fastened the knives *o o*. Between these flanges, if there is more than one on each roll, are made raised projections *s s*, lying in the same direction as the flanges. If there is but one flange on each roll the projection *s* is made on the side of the roll opposite to the flange. These flanges and projections may be made straight or spiraling, the latter form being the best for the reason that it enables the machine to cut the hay, &c., easier, because the cut in this case is not made on the whole length of the knife at one time. The knives are fastened to the flanges in such a position as to be nearly flat to the periphery of the roll. Two gear-wheels, E F, are fastened, one to each roller-shaft, and made to mesh into each other for the purpose of driving one roll by the other and to govern their relative positions, and oblige the knives to cut across the projections, the flanges on the two cylinders alternating or taking

turns in cutting by the projections on each other. The frames L L that hold the bearings of the rolls are secured to the wooden frame of the machine by dovetail slides *e e*, (see Fig. 2,) made on their sides, and which slide into dovetail recesses *n n*, made in the standards *d d* or in separate pieces *g*, (see Fig. 2,) which are fastened to the standards. By this arrangement the rolls can easily be taken from the frame by raising them out of the slots. This is a great convenience in packing the machines for transportation, as the frames can readily be carried in the shape in which they are used without injury, while the rolls should be boxed like other machinery to keep them from the weather, &c. The frames *g g* are provided with screws *z z* at their tops to press the rolls nearer together when it shall become necessary from the wearing away of the parts to do so, and to set the rolls properly in the beginning. A balance-wheel, S, having a handle in it to turn the machine by, is fastened upon the end of one of the roller-shafts.

To operate the machine, fill the trough A with the hay or other material to be cut and push it toward the rolls, at the same time turn the wheel S, and the hay, &c., will be drawn in between the rolls by their flanges, and as the knives on the flanges pass by the projections the hay, &c., will be cut off and fall into a box on the outside.

Instead of the projections *s s* the bodies of the rolls may be made smooth, and the knives to cut against the same.

Having thus described my improved hay-cutter, what I claim as my invention, and desire to secure by Letters Patent, is—

1. The cylinders, provided with alternating knives and projections *s*, when constructed as described, and for the purpose set forth.

2. A straw-cutter having two or more of said cylinders, constructed as described, and working in combination in the manner and for the purpose set forth.

3. Attaching the rolls to the frames of straw-cutters by means of dovetail *e* and recess *n*, in the manner and for the purpose set forth.

JOHN G. PERRY.

Witnesses:

ASA F. GARDNER,
O. H. PERRY.