

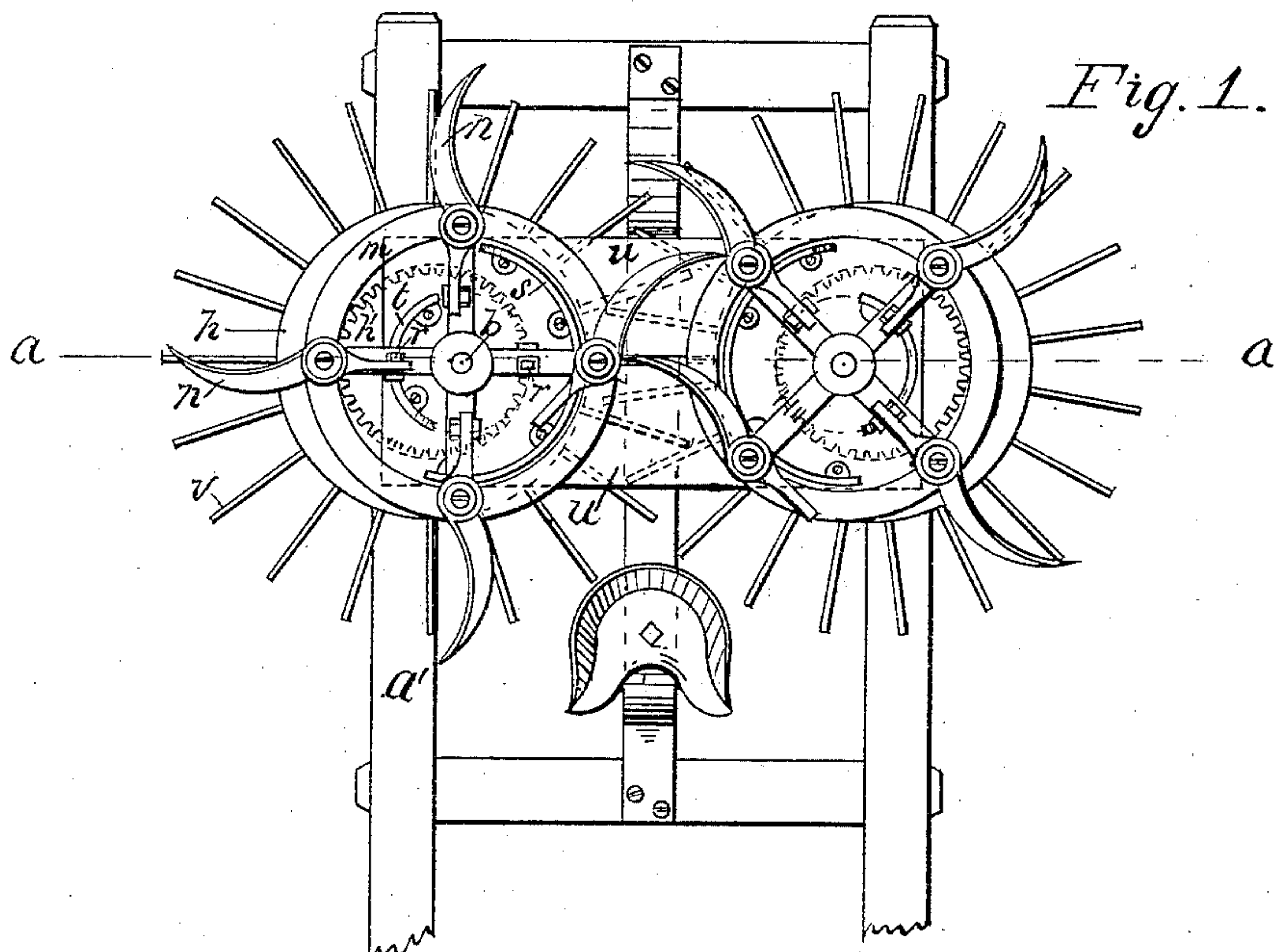
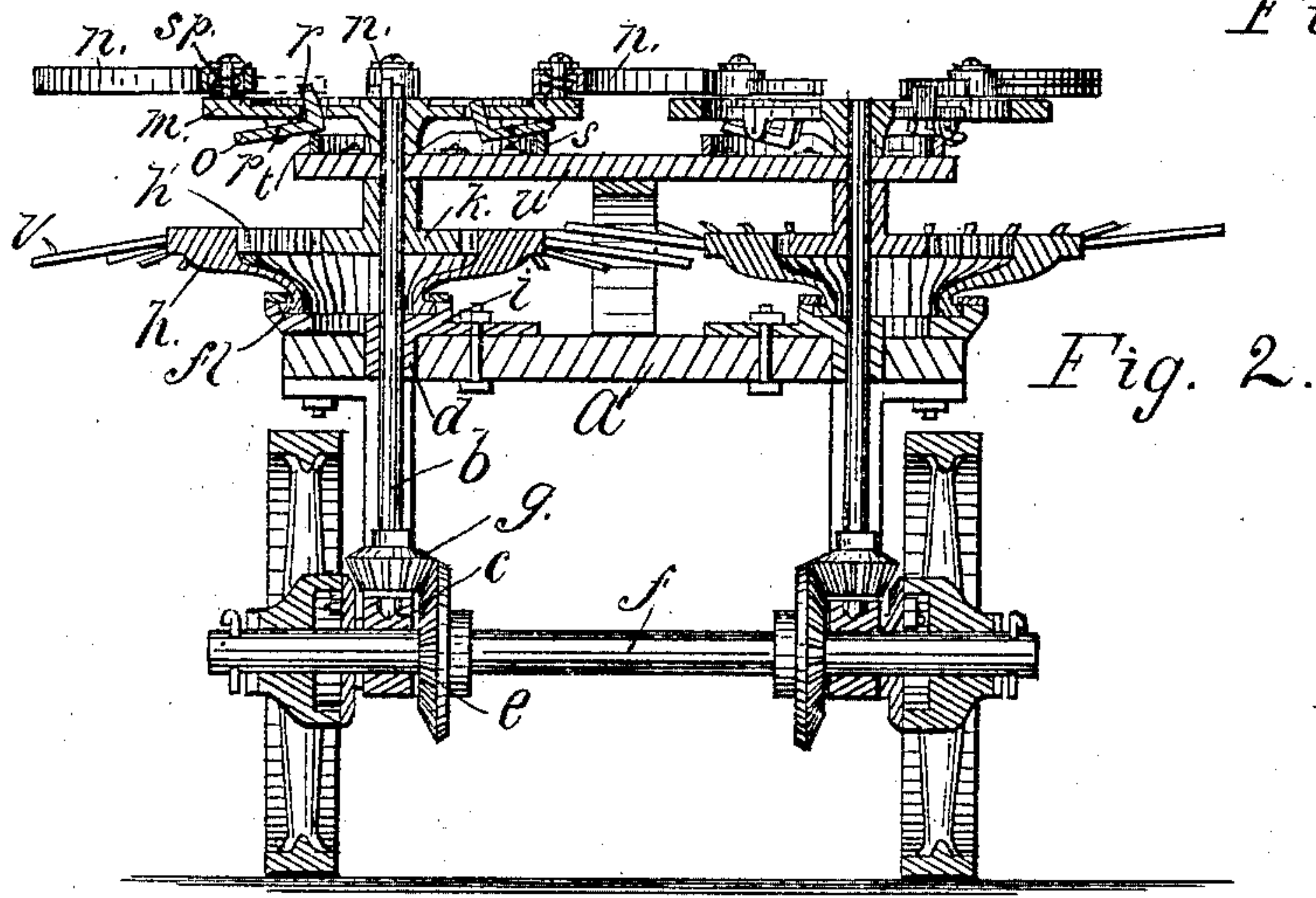
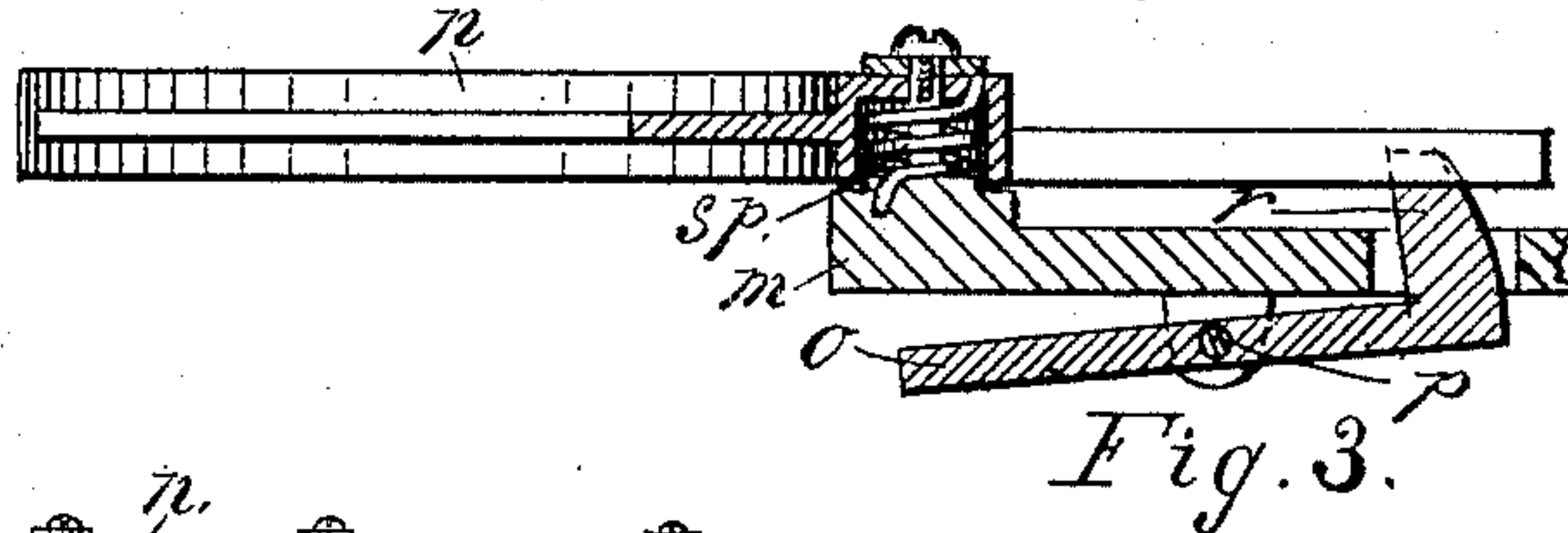
(No Model.)

F. M. PARKER.

MACHINE FOR TABLING BROOM CORN.

No. 328,248.

Patented Oct. 13, 1885.



WITNESSES:

M. Carsten  
W. H. Veff

INVENTOR:

Francis M. Parker  
By H. P. Wood  
Atty.



# UNITED STATES PATENT OFFICE.

FRANCIS M. PARKER, OF CHARLESTON, ILLINOIS.

## MACHINE FOR TABLING BROOM-CORN.

SPECIFICATION forming part of Letters Patent No. 328,248, dated October 13, 1885.

Application filed May 17, 1884. Serial No. 131,834. (No model.)

*To all whom it may concern:*

Be it known that I, FRANCIS M. PARKER, a citizen of the United States, residing at Charleston, in the county of Coles and State of Illinois, have invented a new and useful Improvement in Machines for Tabling Broom-Corn, of which the following is a specification.

My invention relates to improvements in a machine for tabling broom-corn by partially breaking and bending toward each other stalks of standing broom-corn in opposite rows, thereby putting the tops in convenient position for cutting, and forming a table on which to dry said tops, for which Letters Patent No. 212,454 were issued to George W. Foulger and to myself, as assignee of one-fourth interest, February 18, 1879.

The objects of my improvements are, first, to better support the stalks at the point of bending; and, second, to prevent the clogging of the machine by reason of the stalks becoming entangled in the breaking-arms, all as hereinafter explained.

The accompanying drawings illustrate my invention. Figure 1 is a plan; Fig. 2, a vertical section through *aa*, Fig. 1; Fig. 3, an enlarged section of one of the breaking-arms and the stop for holding it in position.

*a'* is the bed-frame, to which the working mechanism is attached. Duplicate mechanism for engaging and breaking over the standing corn on each side of the machine is mounted on opposite sides of said frame, and as a description of the mechanism of one side will apply to the other also I will describe the mechanism of one side only.

*b* is a vertical shaft arranged to revolve in bearings *c* and *d*. Said shaft is driven by means of bevel gear-wheel *e*, secured to the axle *f*, and bevel-pinion *g*, secured to the shaft. The axle *f* is connected with the carrying-wheels, on which the machine is mounted by the ordinary well-known ratchet-clutch mechanism, so as to revolve with the carrying-wheels during the forward movement only of the machine.

*h* is a horizontal wheel having internal cog-teeth, *h'*. Said wheel has a central annular flange, *fl*, which turns in an annular bearing, *i*, secured to frame *a*. From the periphery of wheel *h* a series of rigid arms, *v*, project radially.

*k* is a spur-gear wheel intermeshing with the internal cog-teeth, *h'*, and secured to and turn-

ing with shaft *b*. The relative diameters of the carrying-wheels, the bevel-gears *e* and *g*, spur-gear wheel *k*, and internal gear on wheel *h* is such that the periphery of wheel *h* moves at the same rate as the periphery of the carrying-wheels, for the purpose of causing said wheel *h* to have a rolling contact against the standing stalks without bending them backward as the machine is drawn along between the rows.

*m* is a wheel secured to shaft *b*, and carrying a series of breaking-arms, *nn*. Said arms are pivoted to the upper side of wheel *m*, and are held extended radially by a coiled spring, *sp*, surrounding the pivot of each, one end of said spring being fastened to the wheel and the other end fastened to the arm, as clearly shown in Fig. 3.

Beneath each arm *n* is a trip-lever, *o*. Said lever is hinged at *p* to the wheel *m*, and has projecting from its upper surface, through a mortise in wheel *m*, a lug, *r*, which engages one side of the inner end of arm *n*, for the purpose of keeping said arm rigidly extended when in action, as hereinafter explained.

*s* and *t* are annular guides secured to the surface of a secondary frame or table, *u*, for the purpose of operating trip-levers *o*.

The operation of my machine is as follows: The arms *n* on opposite sides of the machine are arranged so as to engage the corn on each side alternately. As the machine is drawn forward between two rows of the standing corn, the periphery of wheel *h* rolls with a slight pressure against it, and the arms *v* enter between the stalks, forming supports over which the stalks are bent backward and inward by the arms *n*. The relation of the bevel-gears *e* and *g* is such that wheel *m* revolves more rapidly than wheel *h*, so that when arms *n* engage the stalks they push the tops backward, and they are bent or partially broken over the supporting-arms *v*.

It sometimes happens that the arms *n* strike the more tender stalks with such force as to partially break them at the point of contact, in which case the top of the stalk falls forward over the breaking-arm, forming a loop about it, which either breaks the arm or clogs the machine. To prevent the clogging or breaking of the breaking-arms *n*, said arms are pivoted to wheel *m*, and are held rigid, while first engag-



ing the corn, by the lug *r* on trip-lever *o*, the inner end of which is forced upward and held in position by the guide *t*. When the arm *n* reaches the extreme limit of its backward movement, guide *s* engages the outer end of the lever *o* and draws the lug *r* down out of engagement with the arm, allowing it to swing backward, as indicated in dotted lines, Fig. 1, when caught by a looped stalk, and the arm is drawn out from the loop by the forward movement of the machine. As soon as the arm *n* is free, it is returned to its normal position by the recoil of spring *sp*, where it is locked by the lug *r*, which is forced up by the guide *t*.

In the former machine, patented as before mentioned, the wheel partly corresponding to my wheel *h* had no projecting arms corresponding to arms *v* in my machine, and consequently the stalks were not sufficiently supported at the point where it was desired that they should break over, but would slip off the periphery of the wheel without breaking. The breaking-arms in the former machine corresponding to the arms *n* in my machine were rigid and unyielding. The difficulties arising

from these imperfections I avoid by my improvements.

I claim as my invention—

1. In a machine for tabling broom-corn, the combination of a wheel arranged to revolve in a horizontal plane and having rigid radially-projecting arms, and a second wheel arranged to revolve in a horizontal plane above the first-mentioned wheel at a greater speed and having yielding radial arms, all substantially as and for the purpose specified. 30 35

2. In a machine for tabling broom-corn, wheel *m*, a series of arms, *n*, pivoted thereto, trip-lever *o*, having lug *r*, spring *sp*, and guides *s* and *t*, all combined and arranged to co-operate, substantially as specified. 40

3. In a machine for tabling broom-corn, the combination, substantially as specified, of frame *a*, vertical shaft *b*, spur-gear wheel *k*, wheel *h*, having internal cog-teeth, *h'*, and annular bearing *i*. 45

FRANCIS M. PARKER.

Witnesses:

H. P. HOOD,  
A. B. REEVES.