

(Model.)

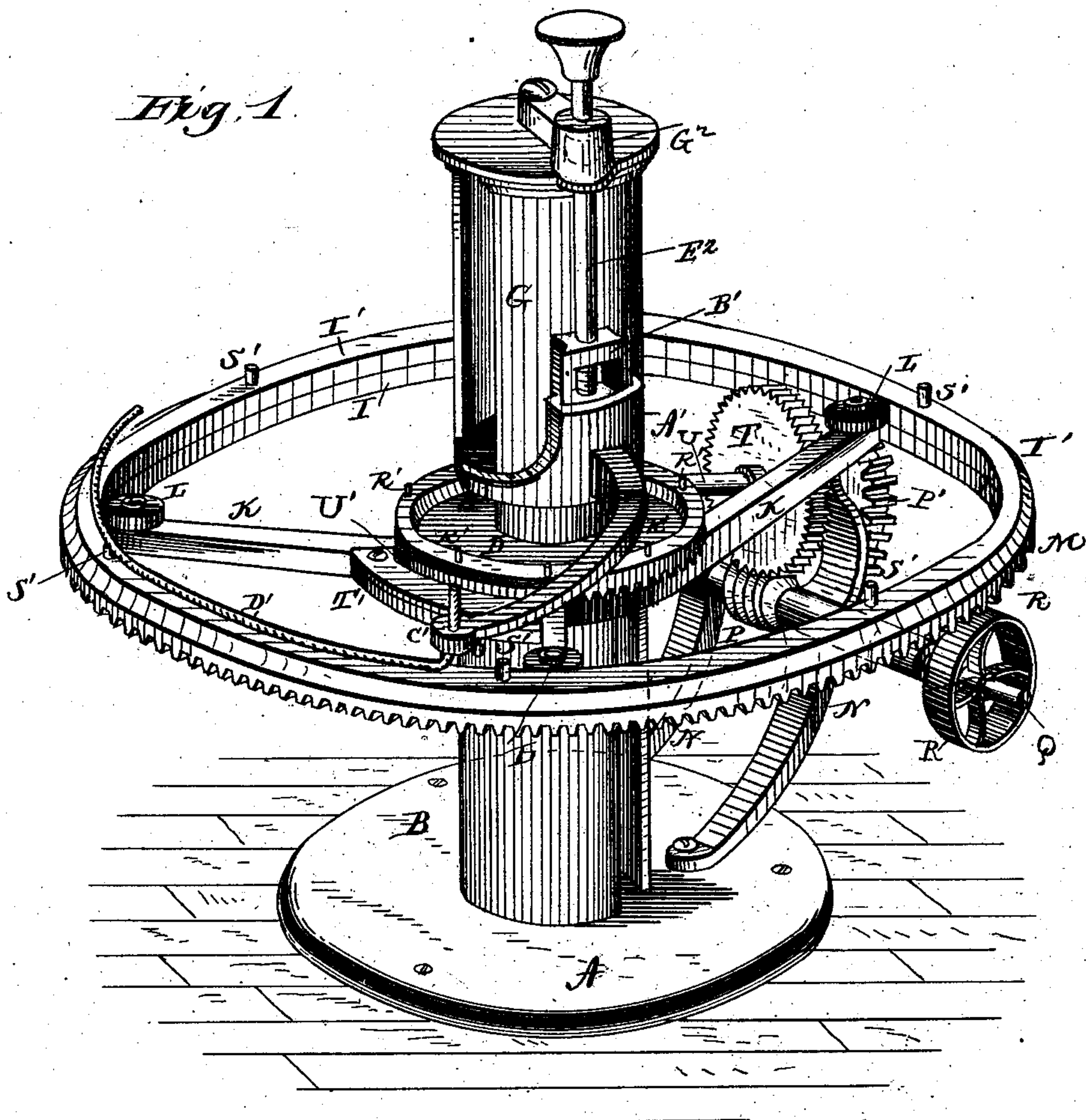
2 Sheets—Sheet 1.

O. ALLEN.

ROTARY SPOKE FEEDING MACHINE.

No. 248,124.

Patented Oct. 11, 1881.



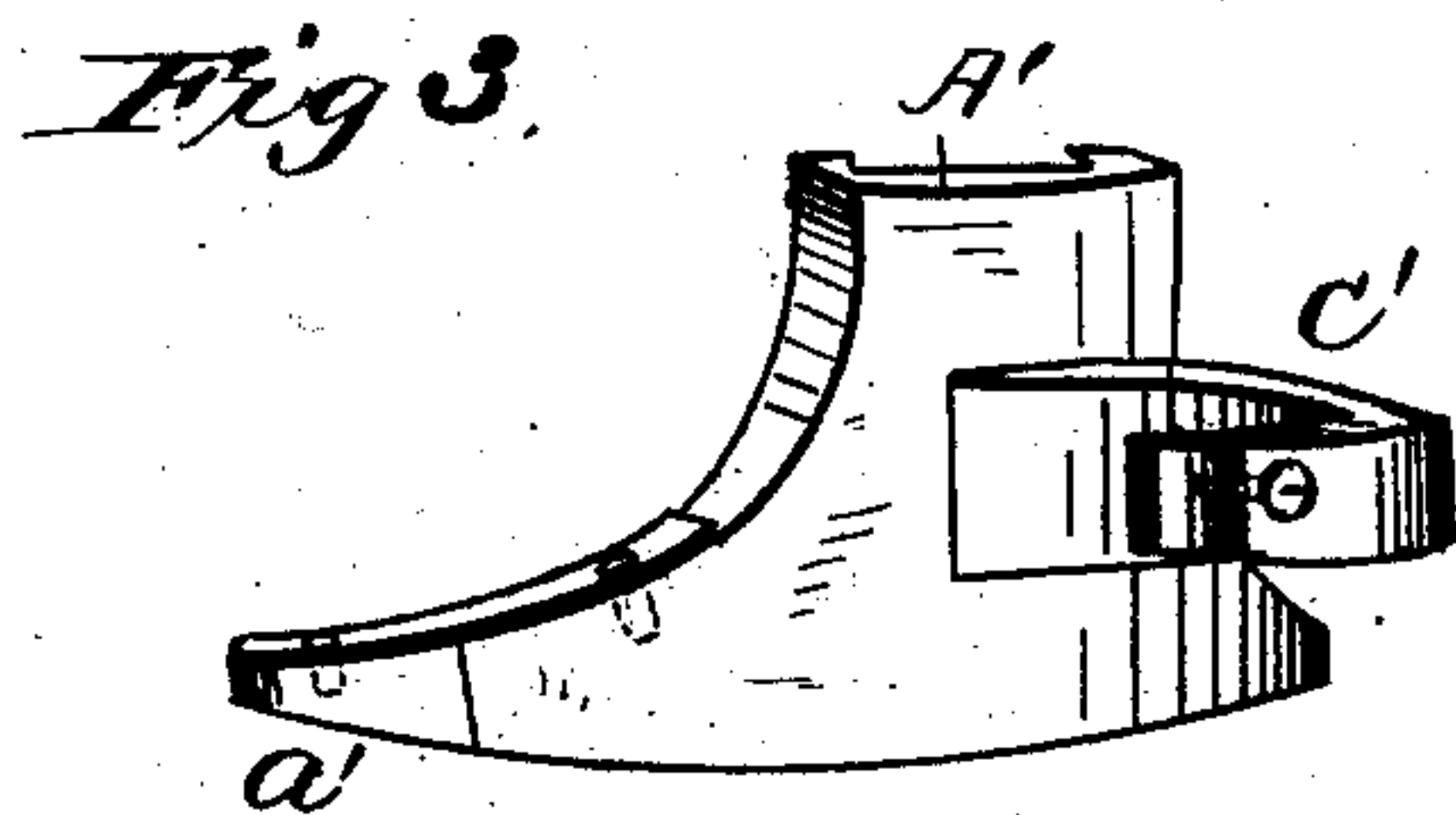
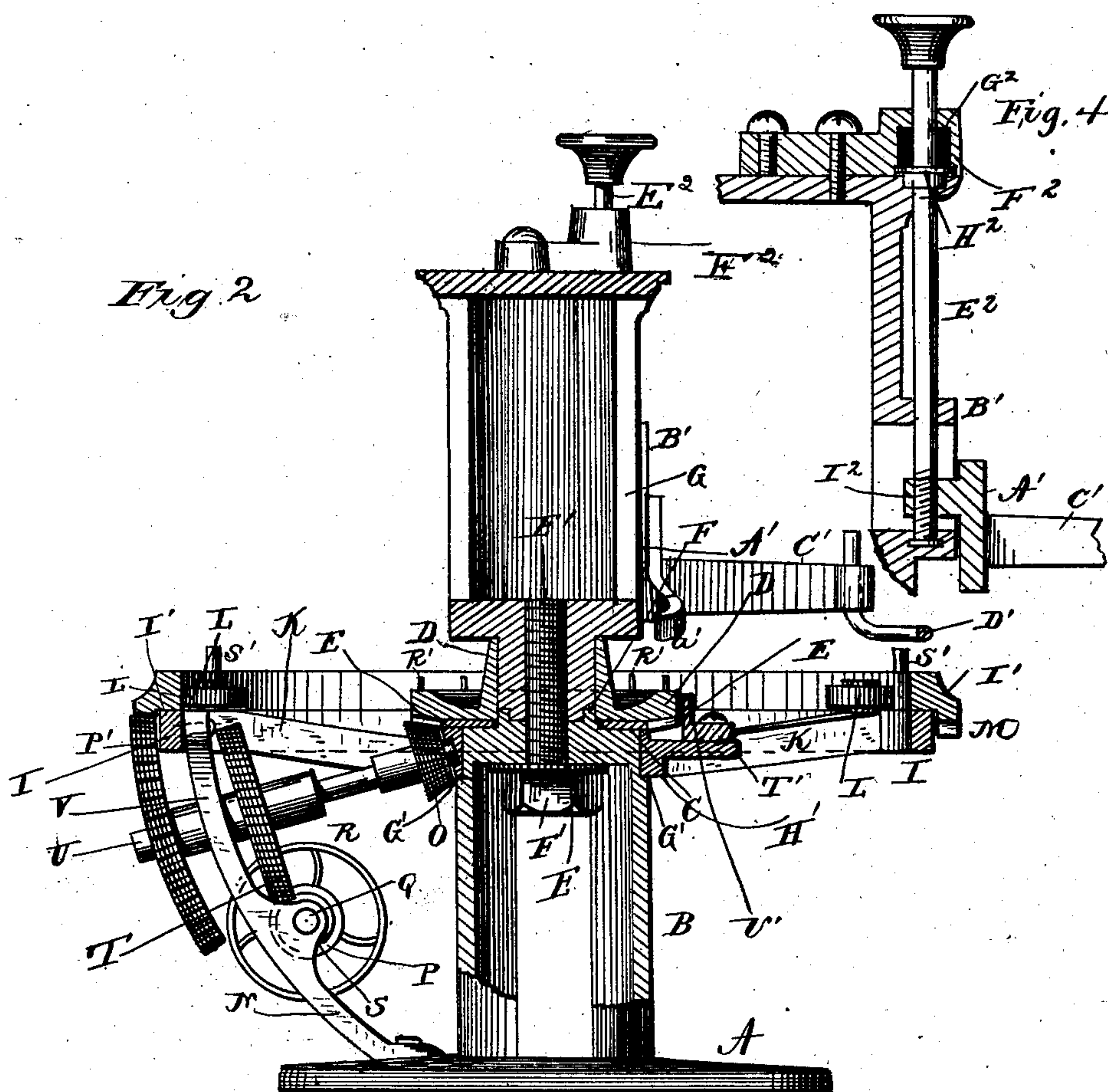
Witnesses,
Frank L. Curand
H. Aubrey Coulman

Inventor,
Oscar Allen
By C. M. Alexander
Attorney

2 Sheets—Sheet 2.

ROTARY SPOKE FEEDING MACHINE.

Patented Oct. 11, 1881.



Witnesses,
F. L. Ourand,
H. Aubrey Faulkner.

Inwren, tor.
Oscar Allen
By C. M. Alexander
Attorney

UNITED STATES PATENT OFFICE.

OSCAR ALLEN, OF MOUNT MORRIS, NEW YORK.

ROTARY SPOKE-FEEDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 248,124, dated October 11, 1881.

Application filed August 12, 1881. (Model.)

To all whom it may concern:

Be it known that I, OSCAR ALLEN, of Mount Morris, in the county of Livingston, and in the State of New York, have invented certain new and useful Improvements in Rotary Feeders for Spokes and other articles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to certain improvements in rotary feeders for feeding the spokes to the cutters of a spoke-finishing apparatus; and it has for its objects to provide certain improvements whereby the spokes may be held to a rotary bed and passed successively to the action of the cutters, as more fully hereinafter specified. These objects I attain by the apparatus illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of my improved feeder, showing the same secured to the cutter-supports of a spoke-machine; and Fig. 2, a vertical sectional view of my apparatus. Figs. 3 and 4 are details.

The letter A indicates a metallic base supporting a cylindrical vertically-slotted standard, B. This standard at its top is provided with a circular seat, C, for the lower face of an inverted crown-wheel, D, or a suitable intervening washer, E. Upon said upper face is an annular rim, F, forming a recess in which the lower shouldered end of an upper standard, G, fits, the said lower end of the upper standard being embraced by an upright sleeve or hub of the crown-wheel D. The upper and lower standards are provided with vertical screw-threaded openings E', and are securely connected by means of a stout screw-bolt, F'. The lower standard is shouldered at G', near its top, and to said shouldered portion is secured the annulus or hub H' of a circular table or ring, I, connected to said hub or annulus by means of the spokes K. Upon said circular table is mounted a rotary annular carrier, I', the inner side of which bears against the friction-rollers L. The lower outer edge of said annular carrier is provided with cog-teeth M.

The letter N indicates a curved standard, se-

cured to the base and to the circular table above mentioned. The said standard is provided with bearings P, for a transverse shaft, Q, which is provided with a driving pulley, R, and worm, S, the latter gearing with a gear-wheel, T, mounted on a shaft, U, journaled in bearings V in the standard N and in the hub H' of the device. The said shaft, at its inner and outer ends, respectively, is provided with beveled wheels O and P', which intergear respectively with the cog-wheels on the rotating annuli. The said beveled gear-wheels bear such relation to each other as to rotate the annuli at the same speed. The upper faces of the annuli are provided with pins R' S' at equidistant points, which carry the spokes and hold them to the cutters.

The letter T' indicates a segmental web, located between two of the spokes of the circular table. To this web is secured a flanged segmental gage, U', against which the shoulders at the tenons of the spokes rest.

A' indicates a vertical slide which is adapted to work vertically upon ways B', located on the outside of the upper tool-supporting standard. The said slide is provided with a curved arm, a', adapted to bear upon the tenons of the spokes, and hold such ends against the inner traveling annulus.

C' indicates a curved arm projecting outwardly from the slide, and provided at its end with an adjustable curved arm, D', which corresponds with the curve of the outer traveling annulus to hold the outer ends of said spokes to said annulus.

The letter E² indicates a screw-rod journaled in a bearing, F², on the top of the upper standard, the said bearing being provided with an elastic packing, G², which bears against the shoulder H² on the screw-rod. Said screw-rod gears with a screw-thread aperture in a lug, I², on the back of the slide, and forms a means of moving the slide so as to clamp the arms a' and D' upon the spokes.

The cutter-operating devices are located in the slots in the upper and lower standards, which are set angularly or out of line with each other, in order to work past each other, so as to throat one side of the spoke at a time. These are arranged one above and one below the feed

mechanism in the usual manner, and as they form no part of my invention detailed description is not deemed necessary.

5 In using my invention the spokes are to be placed on the rotating annuli in front of the pins, which are to force the spokes through under pressure-bars. The jointed inside pressure-bar is for the purpose of holding spoke-tenons that vary in thickness. The flanged
10 segment secured to the web is for the purpose of adjusting the shoulders of the spokes to bring the shoulders on the same line in passing between the pressure-bars, in order that they may be uniformly trimmed.

15 By loosening the screw securing the upper and lower supporting-standards the positions of the parts may be varied to any extent for the purpose of adjustment by turning the upper standard on its bearings.

20 I do not desire to limit myself to the slotted standards in connection with the other devices as suitable uprights provided with ways or tracks on the front, for the slide may be employed.

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

30 1. In a spoke-trimming machine, the combination of the upper and lower standards, secured together by a screw-bolt and the spoke carrying and clamping mechanism, arranged

together substantially as described, for the purpose specified.

2. In combination with the inner and outer annuli, provided with pins, as described, the
35 actuating-gearing and the clamping devices mounted upon the upper supporting-standard, substantially as specified.

3. In combination with the slide adapted to move on ways attached to the upper standard, and provided with inner and outer clamping-
40 bars, the adjusting-screw and its elastic bearing, substantially as and for the purpose specified.

4. In combination with the slide mounted on
45 the upper standard, the curved jointed pressure-arm, adapted to bear upon the tenons of the spokes and hold the same against the inner annulus, substantially as set forth.

5. In combination with the inner and outer
50 annuli and the mechanism for clamping the spokes to the same, the gearing for operating said annuli, constructed and arranged substantially as specified.

In testimony whereof I affix my signature
55 in presence of two witnesses this 5th day of July, 1881.

OSCAR ALLEN.

Witnesses:

T. A. COLBURN,
E. A. MILLS.