

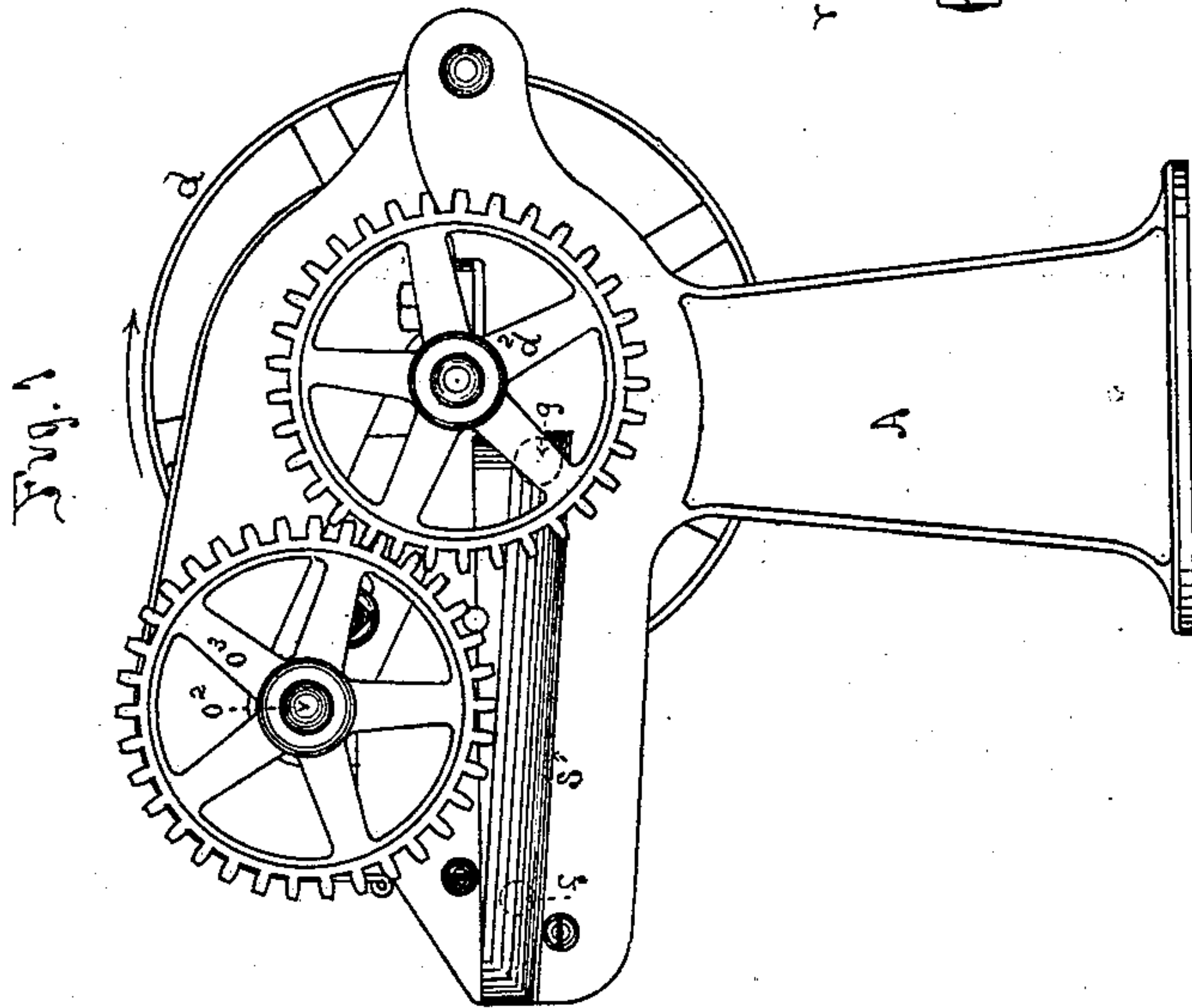
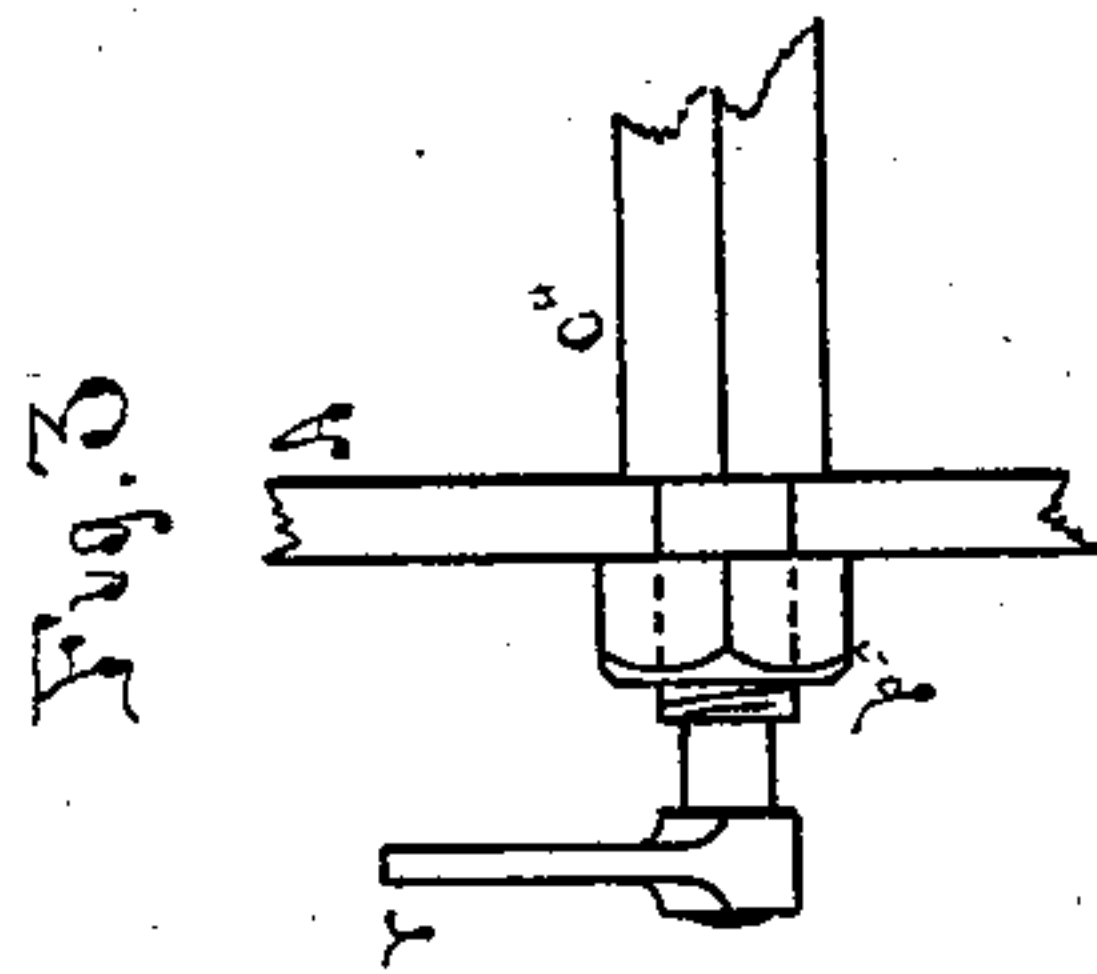
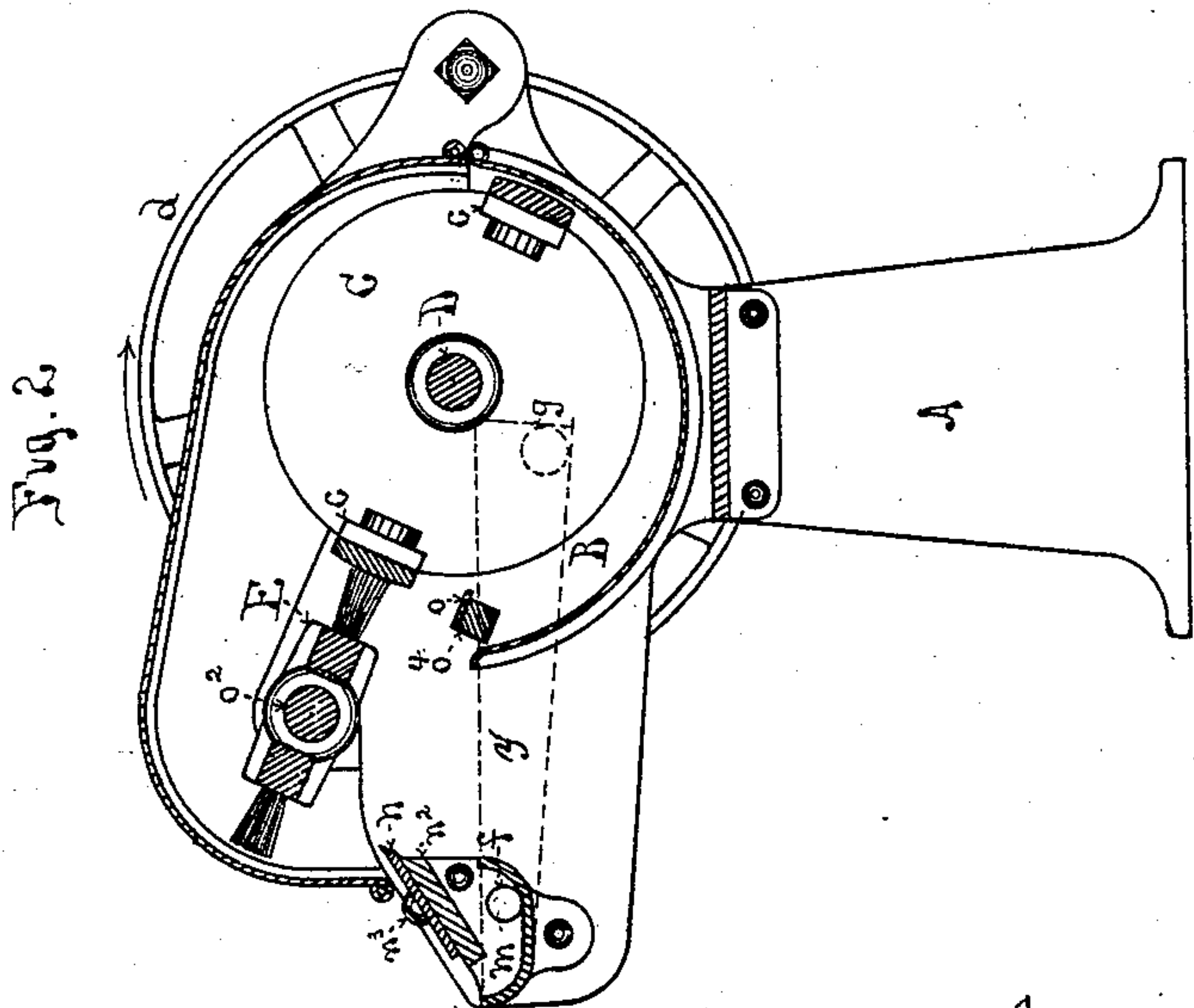
(No Model.)

F. G. & A. C. SARGENT.

WOOL OILING MACHINE.

No. 260,898.

Patented July 11, 1882.



Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK G. SARGENT AND ALLAN C. SARGENT, OF GRANITEVILLE, MASS.

WOOL-OILING MACHINE.

SPECIFICATION forming part of Letters Patent No. 260,898, dated July 11, 1882.

Application filed October 21, 1881. (No model.)

To all whom it may concern:

Be it known that we, FREDERICK G. SARGENT and ALLAN C. SARGENT, of Graniteville, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Wool-Oiling Machines, of which the following is a specification.

Our invention relates to improvements in machines for oiling wool preparatory to carding or other working.

The objects of our invention are to throw the oil upon the wool in a spray or mist free from large drops or lumps, and to prevent waste of oil from too great a quantity being thrown down at any one time. We accomplish these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an end elevation of a wool-oiler of our improved construction. Fig. 2 is a vertical section of the same. Fig. 3 is a detail showing how the scraper-shaft o (seen in Fig. 2) is fastened in position.

A is the frame which supports the machine and at the same time forms the ends of the tank B, into which the oil or oleaginous mixture designed to be thrown down upon the wool is placed.

C is a disk which, with another similar one placed on shaft D, carries upon its periphery the distributing-bars $c c$, which extend substantially the entire length of the tank B. This cylinder, constructed of the disks and bars, rotates upon the shaft D, and with each rotation dips the bars $c c$ into the oil or grease mixture placed in the tank and carries a portion of it up upon their surfaces to the brush E, which rotates upon the shaft o^2 . The brush consists of bunches of resilient fibers, wire or bristles being preferred, arranged about the shaft o^2 in separate ranks, as many in number as there are distributing-bars upon the cylinder C, and placed in the same relation to one another that the bars are to each other. The shafts D and o^2 are connected by the gear-wheels o^3 and d^2 , which are of equal diameter, and therefore the shafts o^2 and D will make an equal number of revolutions; but as the bars c are farther from the shaft D than are the ends of the brush from shaft o^2 they will in equal revolutions move through a greater distance, so that the brush will both be set down end-

wise upon the bars, and also while being so set down by the rotation of the shafts D and o^2 will be drawn over the bar. As this action occurs as each bristle has its end brought into contact with the bar, the brush will have each bristle separated slightly from its neighbors, so that the oil can obtain a ready access to it, and by the sum of such operations be evenly filled with oil, instead of loading it upon one side or one part with a greater portion than upon another.

o^4 is a rock-shaft having attached a plate, o , which can by the adjustment of the shaft be brought as near to the path of the bars $c c$ as may be desired. The shaft o^4 is held in any position desired by the jam-nut p , placed upon its bearing outside of the frame, as shown in Fig. 3.

r is a crank-arm attached to the shaft, by means of which it is rocked when the jam-nut is loosened and also held while the jam-nut is being tightened. By partly rotating the shaft o^4 the scraper-plate o is moved nearer to or farther from the path of the bars c and can readily be adjusted to remove any surplus oil or grease from the bars c , so that no lumps or large quantity of oil will be carried up to the brush.

n is a plate whose edge is advanced within the circle described by the ends of the bristles forming the brush, so that as the brush is rotated it strikes the edge of the plate n , which bends the bristles backward and scrapes off any superfluous oil. As the shaft o^2 further rotates, the brush is carried forward after its contact with the plate, and its bristles or filaments, springing over the edge of the plate by their resilience, straighten so suddenly that they throw off the oil, which has up to that time adhered to them in the form of a mist upon the wool which passes beneath. The plate n is attached to the bar n^2 by set-screws n^3 , which screw into the bar and pass through the plate in slotted holes therein, so that the plate can have its edge advanced so as to come into contact with the brush and as it rotates bend back its filaments as much as may be desired. As the edge of the plate that comes into contact with the brush is higher than its outer edge, any oil which it takes off from the brush will flow across the plate and

fall into the trough *m*, which is placed under
its rear edge, from which it flows through the
hole *f* into the trough *s* on the outside of the
frame, one of which troughs is shown in eleva-
5 tion in Fig. 1 and the other indicated by dotted
lines in Fig. 2. After passing into the trough,
which is covered to prevent dust from falling
into it, it flows along the bottom to the open-
ing *g*, through which it passes back into the
10 tank B, thus preventing waste. As the oil is
'brown off' from the brush it falls down onto
the wool through the opening between the
trough *m* and the tank B.

It will be observed that by means of the
15 scraper *o* and plate *n* the passage to the brush
and from it to the wool of any lumps or thicker
masses of oil which may be in the tank or be
caused to exist there because of any changes
in the temperature of the air surrounding the

tank or by other causes is prevented, and a 20
constant and even quantity is thrown upon
the wool, it being only necessary to adjust the
plate *n* so that the resiliency of the brush as
it slips off the edge of the plate will be suffi-
25 cient to throw off the thickest oil used.

What we claim is—

1. The combination of the tank B, the dis-
tributing-cylinder provided with the bars *c*,
and scraper *o*, with the brush E, substantially
as described. 30

2. The combination of the tank B and brush
E with the plate *n*, trough *m*, and trough *s*,
substantially as described.

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