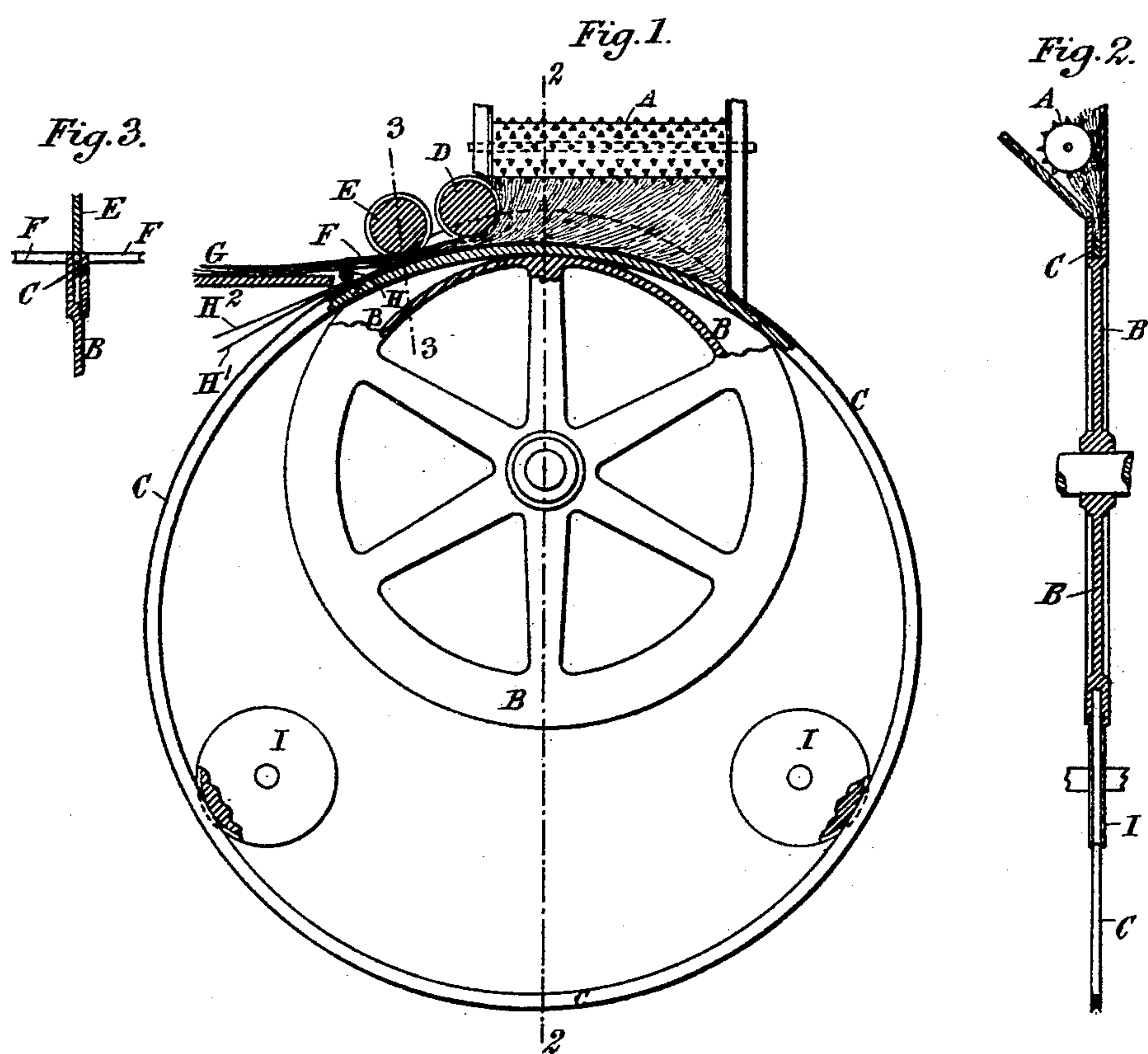


No. 616,477.

Patented Dec. 27, 1898.

R. LEGG.  
CIGARETTE MACHINE.  
(Application filed Sept. 16, 1898.)

(No Model.)



Witnesses

A. M. Parkins.

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# UNITED STATES PATENT OFFICE.

ROBERT LEGG, OF LONDON, ENGLAND.

## CIGARETTE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 616,477, dated December 27, 1898.

Application filed September 16, 1898. Serial No. 691,103. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT LEGG, engineer, a subject of the Queen of Great Britain, residing at City Engine Works, Eagle Wharf road, London, in the county of Middlesex, England, have invented certain new and useful Improvements in Cigarette-Machines, of which the following is a specification.

This invention relates to the class of machines in which shredded tobacco is formed into a continuous rod or "filler" and is then covered with a continuous paper envelop and finally cut into lengths as cigarettes.

Hitherto the formation of the continuous rod from the hackled or carded shreds of tobacco has been effected in such machines in various ways, none of which is quite satisfactory. The present invention effects an improvement in this respect; and it consists of mechanism by which the shredded tobacco after undergoing the hackling or carding operation is deposited in the exposed segment of a deep groove formed with parallel sides in the periphery of a wheel rotating on a horizontal axle. The wheel carries in the bottom of its groove an eccentric ring or hoop of larger diameter than the wheel, and which therefore does not coincide with the groove throughout its circumference and is only in contact with the bottom of the groove at about the middle of the feeding-space, but is kept in position by supplementary guide-rollers. The groove in the first-named wheel approximates in breadth to the diameter of the required cigarette, and the depth of the groove in the direction of the radius is sufficient to contain the segment of the eccentric hoop lying therein and also as much loose tobacco as is, when suitably compressed, equal in cross-section to that of the required cigarette. The eccentric hoop revolves with and about the wheel, and upon its edge before it projects beyond the groove the tobacco is compressed by a vertical wheel the edge of which works in the groove just in advance of the feeding-space. The peripheries of both the eccentric hoop and the compressing-wheel are curved in section approximately to either a semi-circle or a semi-ellipse, according to the form

of cigarette required. The eccentric hoop by its greater diameter than that of the grooved wheel and consequent less curvature lifts the molded rod of tobacco out of the groove and passes it to the covering mechanism, which is of the common type.

Figure 1 is a sectional elevation of so much of a cigarette-machine as is necessary to illustrate this invention. Figs. 2 and 3 are sections on the lines 2 2 and 3 3, Fig. 1, respectively.

A is the hackling or carding apparatus, which may be of any ordinary construction.

B is the deeply-grooved wheel, in which, according to this invention, the hackled tobacco is received and compressed.

C is the loose eccentric hoop rotating with and in the groove of B.

D E are vertical compressing-rollers in the groove on the hoop C.

F F are supplementary rollers receiving and carrying forward the rod of tobacco as it debouches from the groove.

G is the position of the wrapping apparatus of an ordinary cigarette-machine.

H is the bending-roller, over which the wrapping-paper H' and its tape H<sup>2</sup> are passed to conduct the cone of tobacco to the wrapping apparatus.

I I are guiding-wheels to the hoop C.

All the parts are driven by suitable gearing of the usual description, which is not shown.

What I claim is—

1. A filler-forming device consisting of the combination of a grooved wheel, an eccentric hoop of larger diameter in the groove, means for feeding tobacco into the groove and means for pressing it in the groove.

2. A filler-forming device consisting of the combination of a grooved wheel, an eccentric hoop of larger diameter in the groove, means for feeding tobacco into the groove and a pressing-wheel entering the groove.

ROBERT LEGG.

Witnesses:

ROBERT B. RANSFORD,  
JOHN H. WHITEHEAD.