

No. 798,403.

PATENTED AUG. 29, 1905.

H. M. DUMAS.

PULLEY.

APPLICATION FILED NOV. 21, 1903.

Fig. 1.

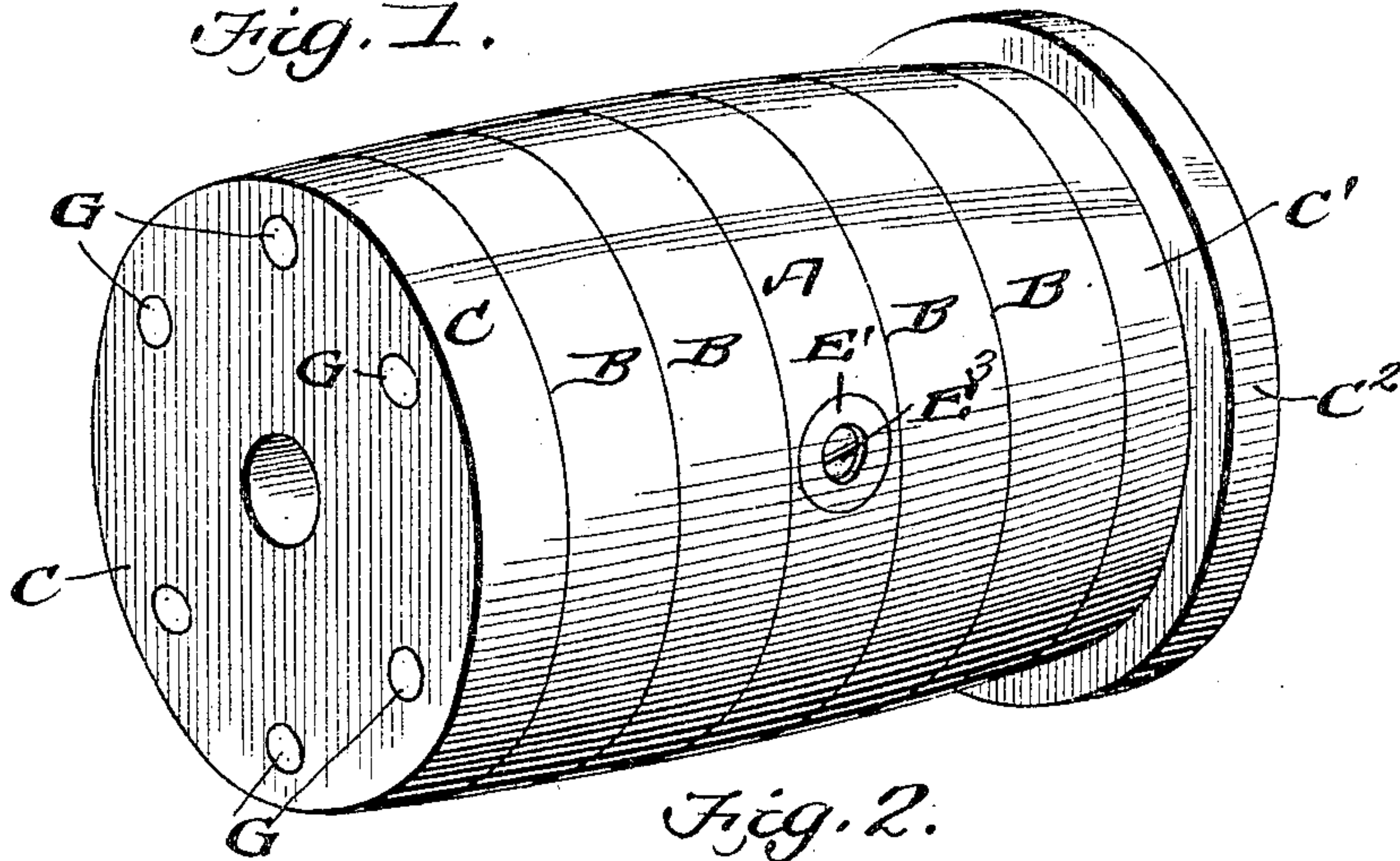


Fig. 2.

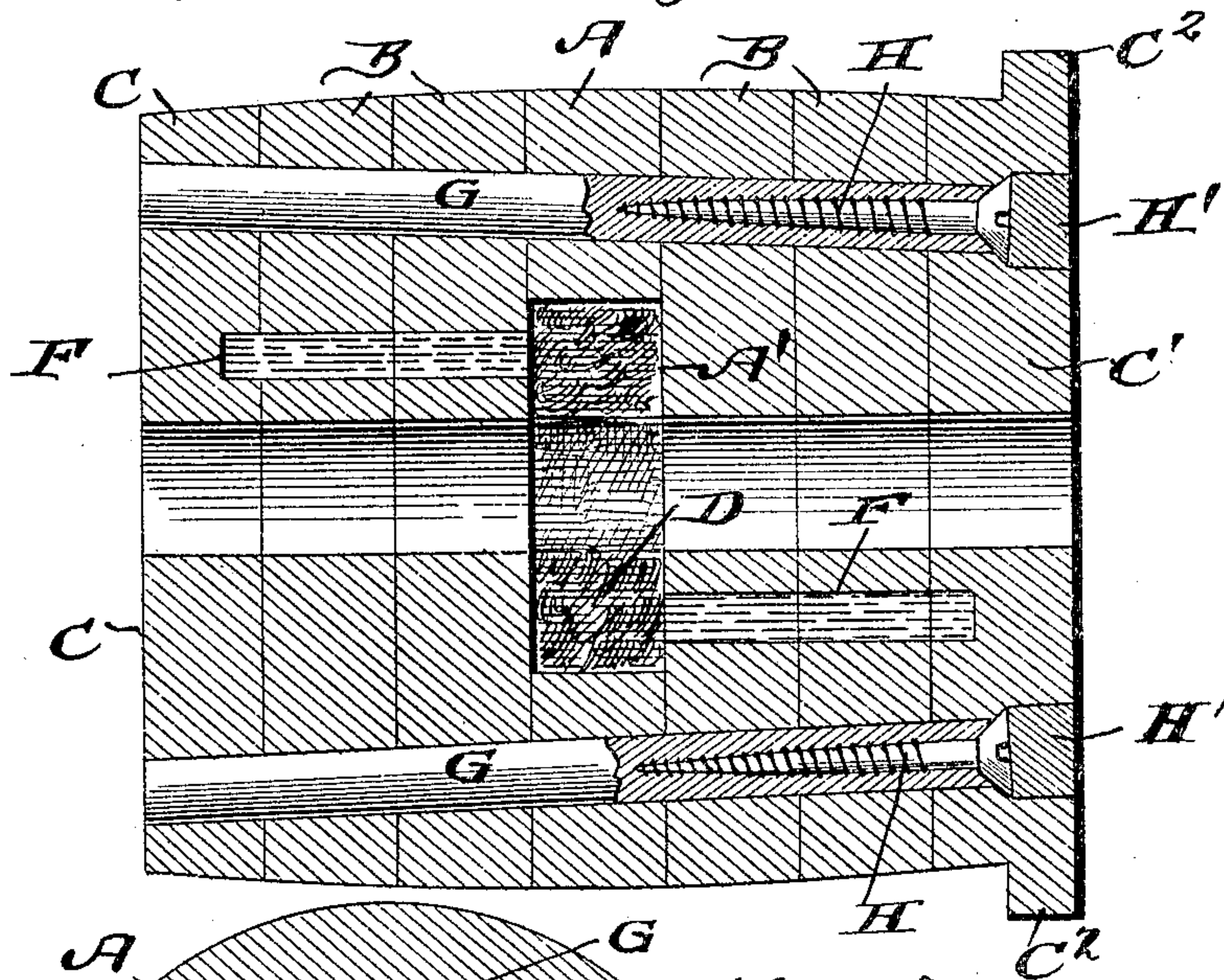
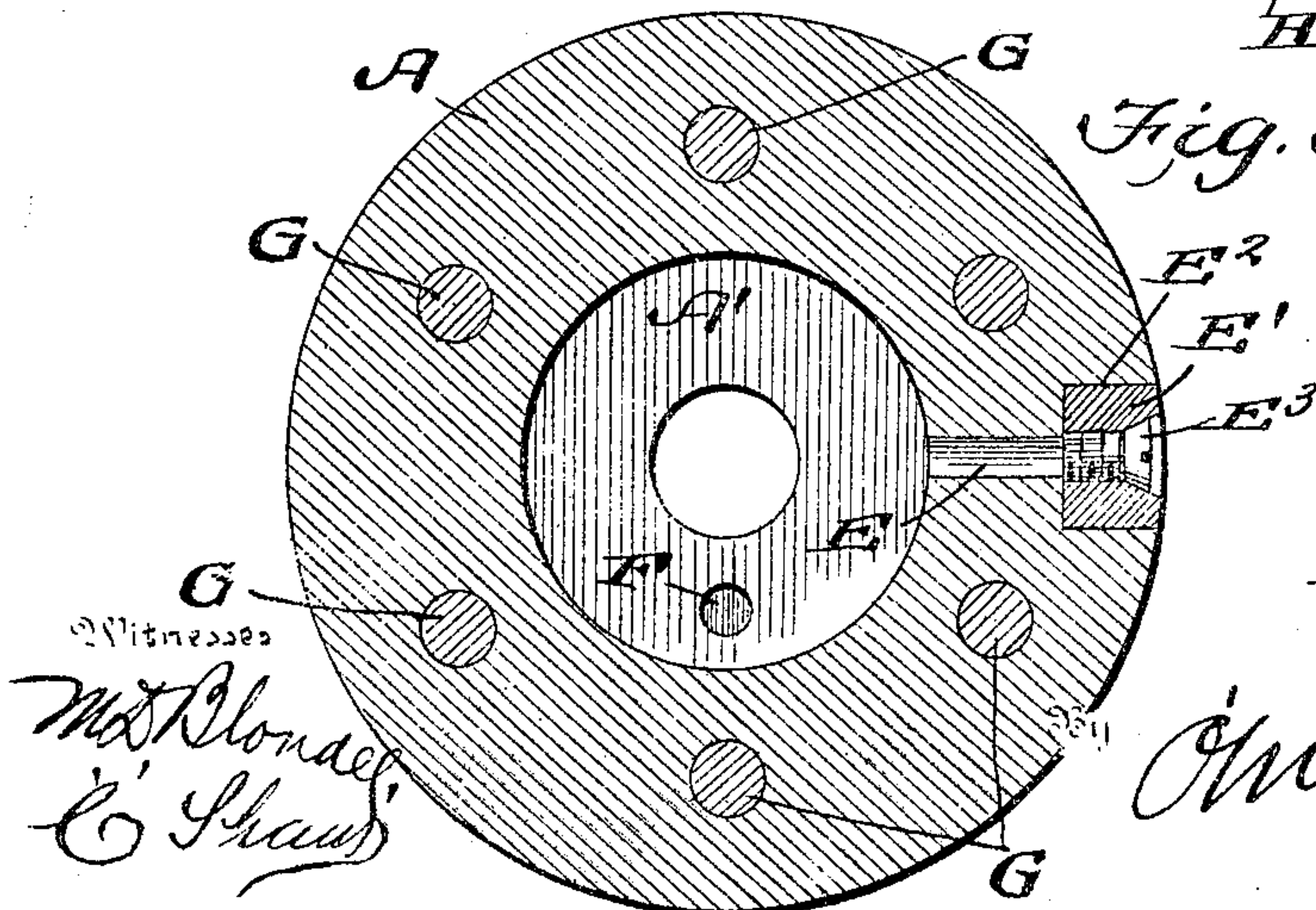


Fig. 3.



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PULLEY.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY M. DUMAS, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented a new and useful Pulley, of which the following is a specification.

This invention relates generally to pulleys, and more particularly to a loose pulley made of wood.

The object of the invention is to provide an exceedingly cheap and simple construction of wooden pulley and one which is provided with a central chamber adapted to receive waste and also one or more oil-chambers adapted to receive and hold oil which is fed to the waste as needed.

With these objects in view the invention consists, essentially, in making a pulley from a series of disks, said disks being united by means of dowel-pins passing through the entire series of disks, said dowel-pins being arranged obliquely to a longitudinal axis of the pulley.

The invention consists also in forming the central disk with a circular opening, thereby providing a chamber adapted to receive waste; and the invention consists also in constructing the disks with a series of registering longitudinal bores, thereby providing oil-chambers communicating with the central chamber, said central chamber having a filling-vent through which the oil is introduced.

The invention consists also in inserting screws into the end or ends of the dowel-pins; and the invention consists also in certain details of construction hereinafter fully described, and pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a perspective view of a pulley constructed in accordance with my invention. Fig. 2 is a vertical longitudinal sectional view, the dowel-pins being shown partly in elevation. Fig. 3 is a transverse sectional view, the waste being omitted from the central chamber.

In making a pulley in accordance with my invention I employ a series of wooden disks arranged side by side, any desired number of disks being employed, according to the width of the pulley required.

In practice I prefer to employ an odd number of disks, and in the pulley illustrated in the accompanying drawings it will be noted that I employ seven disks and which I shall designate as the "central" disk A, the "inter-

mediate" disks B, and the "end" disks C and C', the end disk C' being formed with a shoulder C², which prevents the belt slipping off. All of the disks have a central bore, through which the shaft or axle passes; but the central disk A has a central bore A', which is larger than the bores of the other disks, thereby providing a bore having a greater diameter than that of the shaft which passes through it and providing a chamber adapted to receive and hold waste, as indicated at D in Fig. 2. A bore E extends from the chamber A' to the face of the pulley and through which oil is introduced into the said central chamber, the outer end of this bore being closed by means of a plug E', seated in the recess E² and expanded by means of a screw E³. This screw may be removed for the purpose of introducing oil into the central chamber or the entire plug may be removed, as preferred. The intermediate and end disks are also formed with longitudinal bores F, and in assembling the disks these bores are made to register with one another, thereby providing oil-chambers which communicate with the central chamber A', so that when oil is introduced into the central chamber the waste is first thoroughly saturated, and the surplus oil will then pass into the oil-chambers. Thus it will be understood that the waste is replenished with oil from the chamber F, and in this manner the pulley will be thoroughly lubricated.

For the purpose of thoroughly connecting the disks in their assembled position I employ a plurality of dowel-pins G, which are passed through the entire series of disks and preferably obliquely to the longitudinal axis of the pulley, as most clearly shown in Fig. 2. Screws H are inserted in one or both ends of the dowel-pins, and in practice I prefer to have these screws countersunk, as most clearly shown in Fig. 2, and the heads of the screws are covered and protected by means of plugs H', inserted in the countersunk recess. By having the pulley-pins set obliquely the disks are bound more tightly together and are not likely to become separated when an intense strain is placed thereon. Furthermore, by inserting the screws in the ends of the dowel-pins the said pins are slightly expanded, thereby preventing any possibility of the said pins working loose.

It will thus be seen that I provide an exceedingly simple, efficient, and durable con-

struction of pulley which is self-lubricating and one which is not likely to become impaired or get out of order.

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

1. A pulley of the kind described comprising a plurality of disks provided with a central bore adapted to receive a shaft, a central disk having a bore of greater diameter than the shaft, waste arranged in said bore about the shaft, and means for introducing oil into the said bore, the first-mentioned disks having bores parallel to the axial bore and adapted to afford communication with the bore of the central disk.

2. A pulley of the kind described comprising a plurality of disks having central aligning bores, one of said disks having the said central bore enlarged and of greater diameter than the central bore of the other disks, the remaining disks having a bore parallel to the central bore and affording communication with the enlarged bore.

3. A pulley formed of a series of disks connected together and having a central circular chamber surrounding and communicating with the central longitudinal bore of the pulley, said central chamber having a filling-vent, and the oil-chambers communicating with the central chamber and arranged substantially parallel with the longitudinal bore of the pulley as set forth.

4. A pulley formed of an odd number of disks all of which have a central shaft-receiving bore, the bore of the middle disk being enlarged and of greater diameter than the bores of the outer disks, the remaining disks having bores adapted to register with each other and with the enlarged bore of the middle disk, the bores of the outermost end disks terminating short of the outer faces of the said disks, as and for the purpose set forth.

HENRY M. DUMAS.

Witnesses:

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GEO. GILLESPIE.