

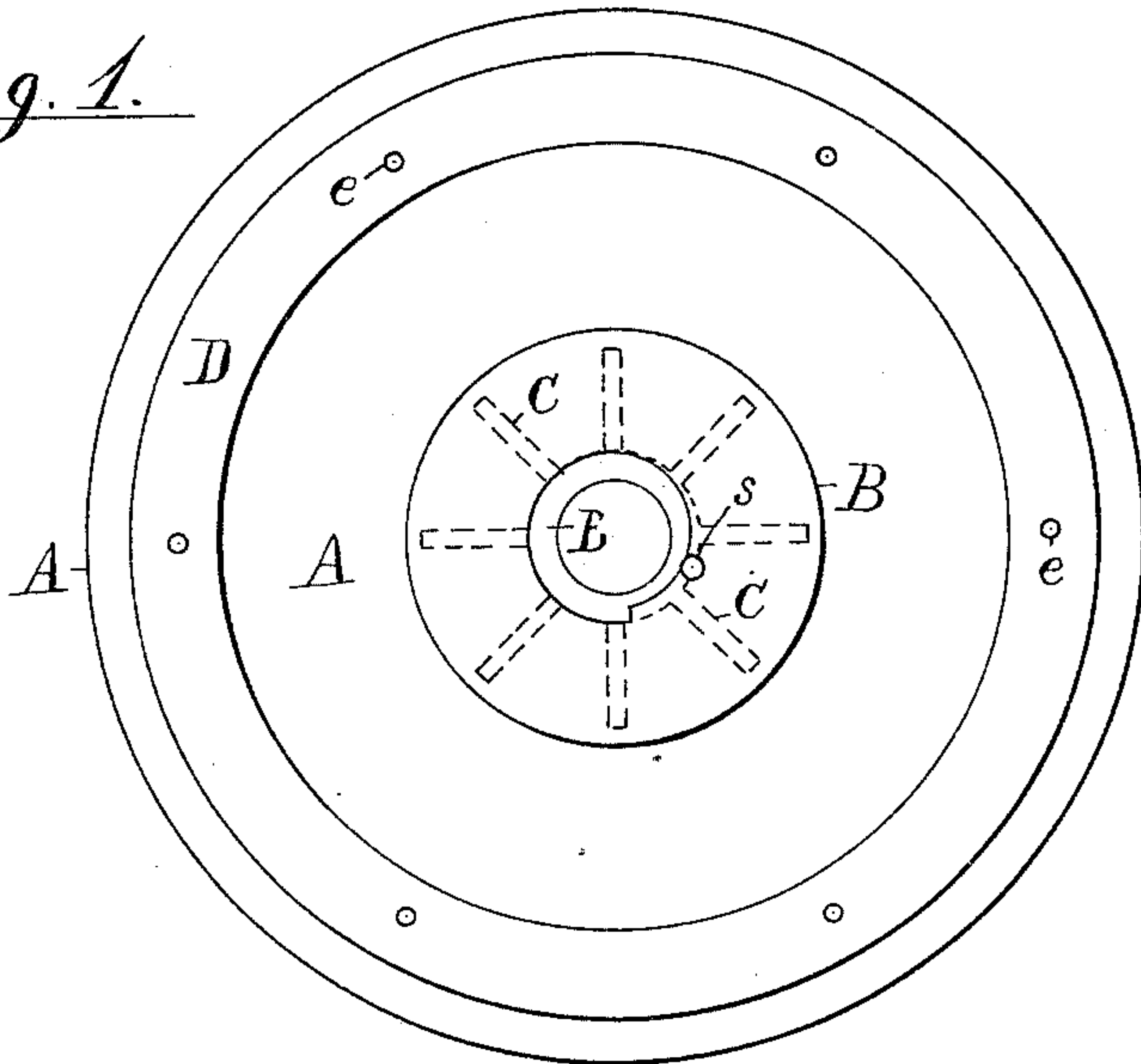
(No Model.)

T. F. LEMASSENA.  
COMPOSITION DRIVING PULLEY.

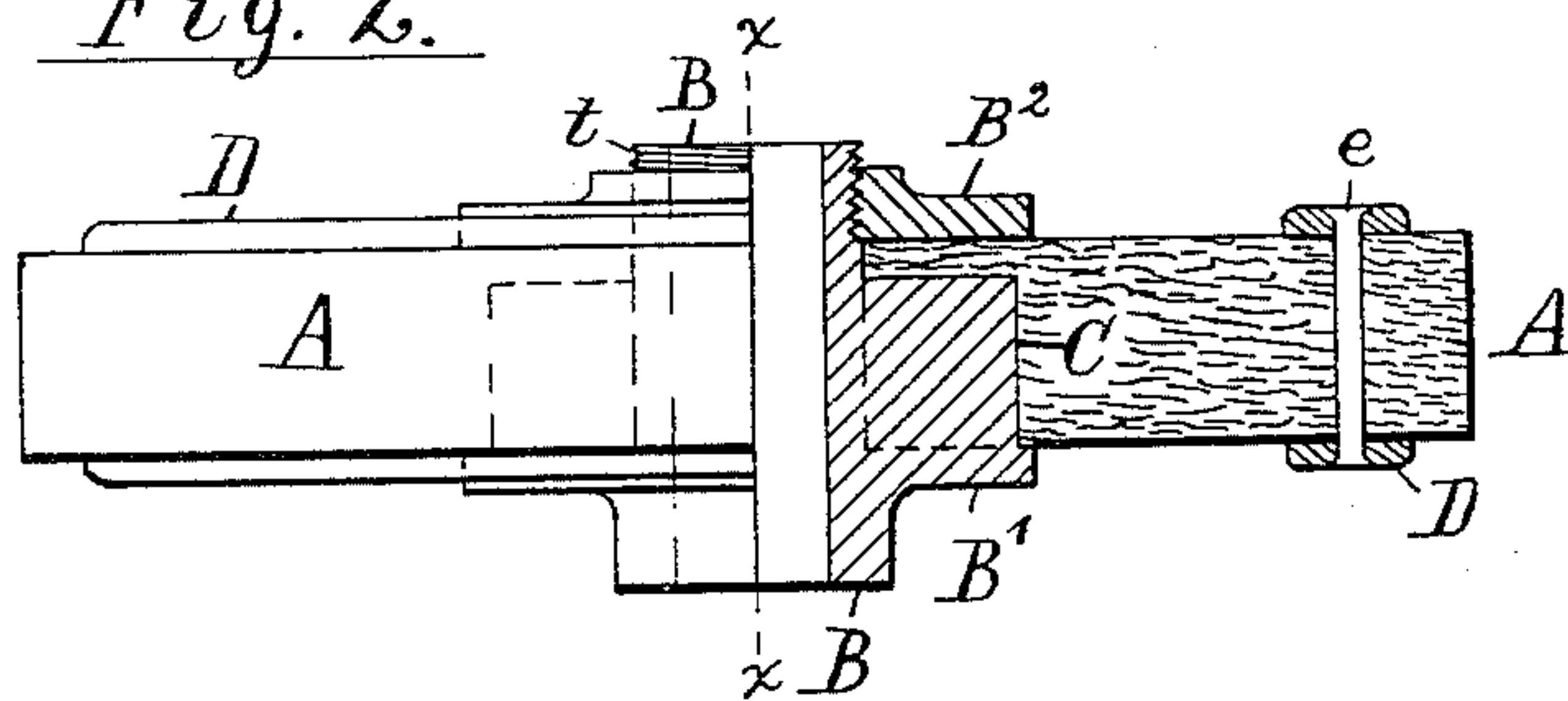
No. 318,759.

Patented May 26, 1885.

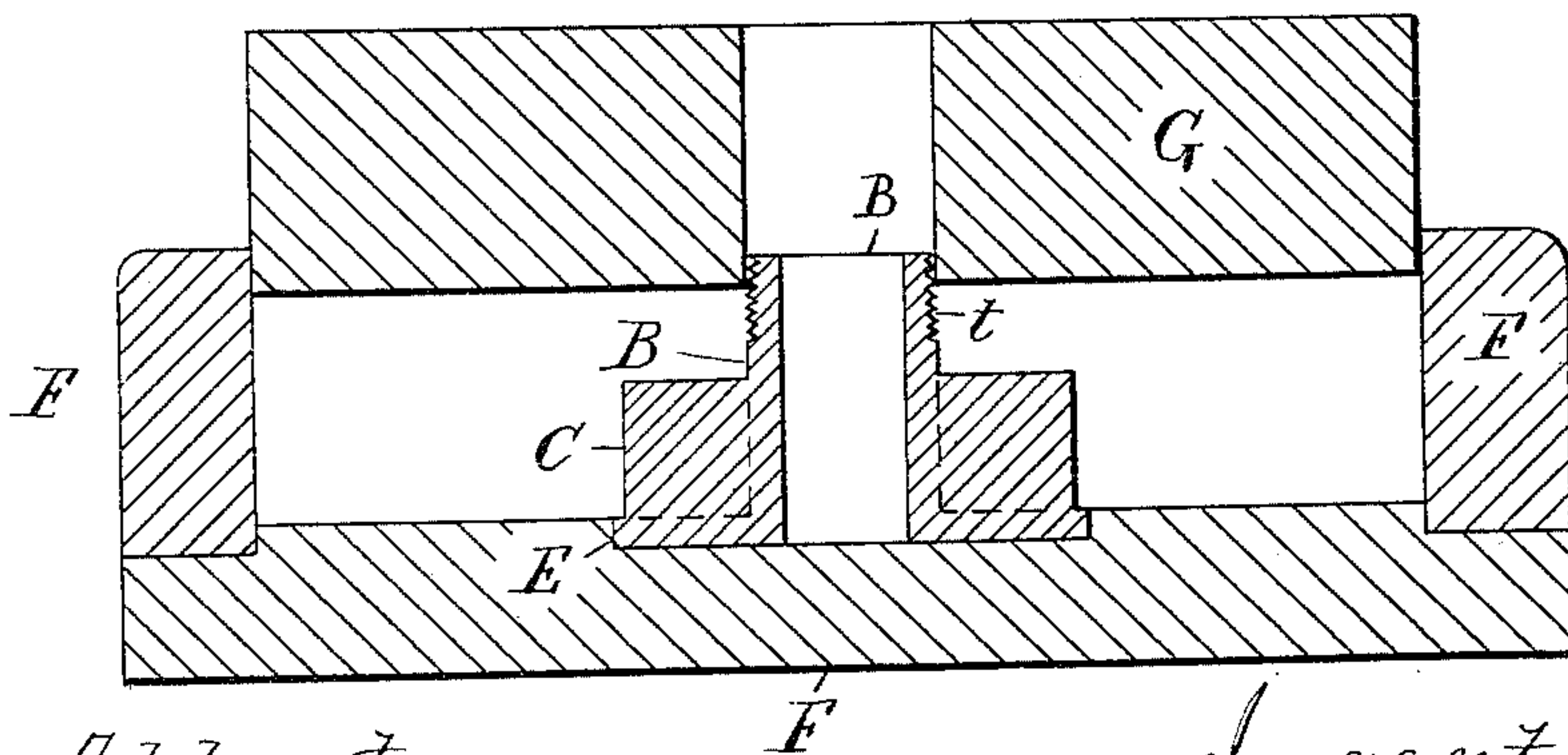
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Attest:*

*Jos. S. Crane*

*L. Lee.*

*Inventor.*

*Theodore F. Lemassena*  
*Newark N.J.*



# UNITED STATES PATENT OFFICE.

THEODORE F. LEMASSENA, OF NEWARK, NEW JERSEY, ASSIGNOR TO  
LILLIAN LEMASSENA, OF SAME PLACE.

## COMPOSITION DRIVING-PULLEY.

SPECIFICATION forming part of Letters Patent No. 318,759, dated May 26, 1885.

Application filed May 16, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, THEODORE F. LEMASSENA, a citizen of the United States, residing in Newark, Essex county, New Jersey, have  
5 invented certain new and useful Improvements in Composition Driving-Pulleys, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

10 This invention consists partly in a pulley formed of a novel composition and partly in means for securing the hub in the same.

In the drawings, Figure 1 is a side view of a pulley embodying all of my improvements.  
15 Fig. 2 is an edge view of the same, shown in section at one side of the center line,  $xx$ ; and Fig. 3 is a section of a mold with pulley-hub set therein ready for the application of the composition prior to the pressing operation.

20 The drawings show certain modifications of my invention; but the pulley claimed by me may be made without any of the attachments or apparatus described herein, as it may be molded or pressed into a plain flat disk by  
25 any suitable means, and is adapted in such shape for a great many uses, where it may be secured to its shaft in the manner already common with wooden pulleys.

I have shown in the drawings a special kind  
30 of metallic hub and means for securing the body of the pulley thereto, but may attach a hub thereto by any other manner that is suitable.

In the drawings, A is the pulley; B, the  
35 hub; B', a flange cast at one end of the same; B<sup>2</sup>, a loose flange adapted to screw upon a thread,  $t$ , formed at the opposite end of the hub from the flange B'.

40 C C are ribs, which may be formed on the hub B or flange B', or on both, and around which the composition is molded to secure the hub permanently in the pulley.

45 D D are rings, applied to the sides of the pulley near the rim, to prevent the rim from lamination or disintegration; and  $e$  are rivets or bolts passed through the pulley and rings to clamp the same rigidly together.

50 The pulley as thus described is adapted to run loose upon its shaft, but may be fastened thereto by a key or set-screw in the usual manner.

The pulley may be formed upon the hub in the process of molding by setting the flanged hub in a recess, E, in the bottom of the mold F, as shown in Fig. 3, and filling the mold  
55 about such hub with the composition, when the follower G may be applied and forced downward until the required density is obtained. The pulley and hub are then removed from the mold, and when the compo-  
60 sition is dry the flange B<sup>2</sup> is screwed tightly up to the side of the pulley. A key or screw, as  $s$  in Fig. 1, may be inserted in the thread to keep the loose flange from unscrewing, if  
65 desired.

The composition claimed by me consists in a mixture of scrap-leather and paper combined together with cement and pressed into the required form in a mold. The leather and paper  
70 may be used in the form of small layers or scraps pasted together with some regularity in the mold, or in the form of pulp disintegrated to a greater or less degree by any suitable means. In either case the combination  
75 of ingredients possesses in the highest degree the qualities requisite for a belt-driving or friction pulley, as it is well known that both these materials are used as a covering cemented upon metallic pulleys to increase the  
80 adhesion of the belt.

I have stated herein that I may attach a hub to the body of the pulley in any suitable manner; but I disclaim as my own invention  
85 any other means for attaching the hub than that specifically shown and described herein, and am aware that it is common to clamp  
flanges upon the sides of wooden and other wheels by passing bolts through the said wheel and flanges jointly.

I am aware that since the filing of my ap-  
90 plication for a patent claim has been made in patent application No. 141,183, filed August 21, 1884, to a driving-pulley formed of leather scraps cemented together; but I have not  
95 claimed such a composition as my own invention, because such material had been previously used in the manufacture of other articles. I therefore distinctly disclaim the entire subject-matter of the said patent application No.  
100 141,183, and do not claim herein a pulley made entirely of leather scraps, but only one in which the paper forms a material ingre-

dient to the extent of one to two thirds of the entire composition. Such composition may not only be made into small pulleys without the metallic attachments claimed herein, and  
5 be clamped or secured to the shaft in any suitable manner, but it may also be molded into thick rings and fastened upon the rim of an iron or wooden pulley, to secure the peculiar adhesive surface obtained by my special  
10 composition.

What I claim herein is—

1. A driving-pulley made of a composition of leather scraps and paper combined with cement, substantially in the manner and  
15 proportions set forth.

2. The combination, with a pulley molded

to the required form, as described, of a flanged and ribbed hub having a loose flange screwed upon the end, substantially as and for the purpose set forth. 20

3. The combination, with a pulley formed of loose scraps cemented together, as described, of the rings applied to the sides of the pulley and clamped thereto, substantially as and for the purpose set forth. 25

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

THEODORE F. LEMASSENA.

Witnesses:

OBA WOODRUFF,

THOS. S. CRANE.