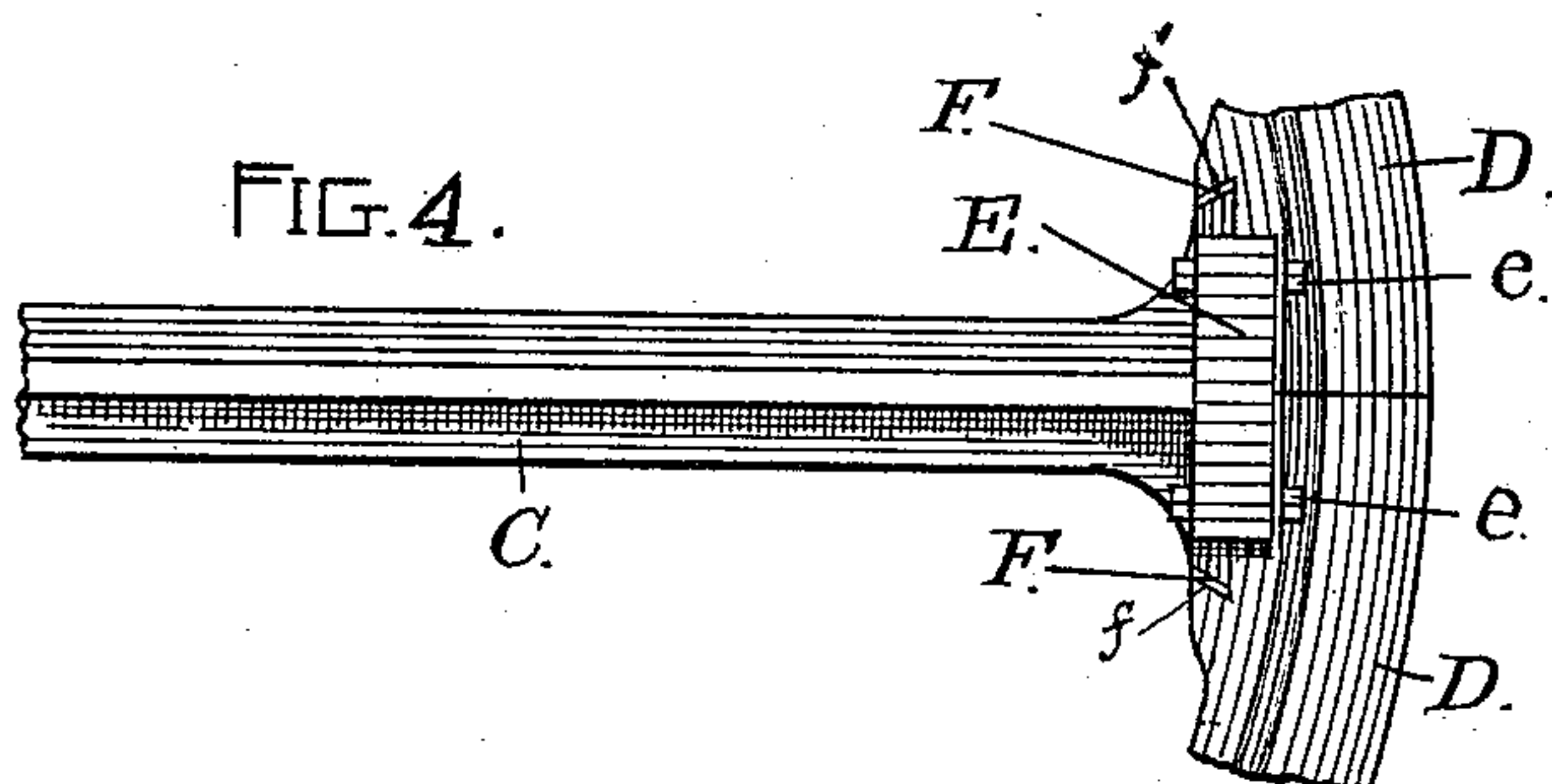
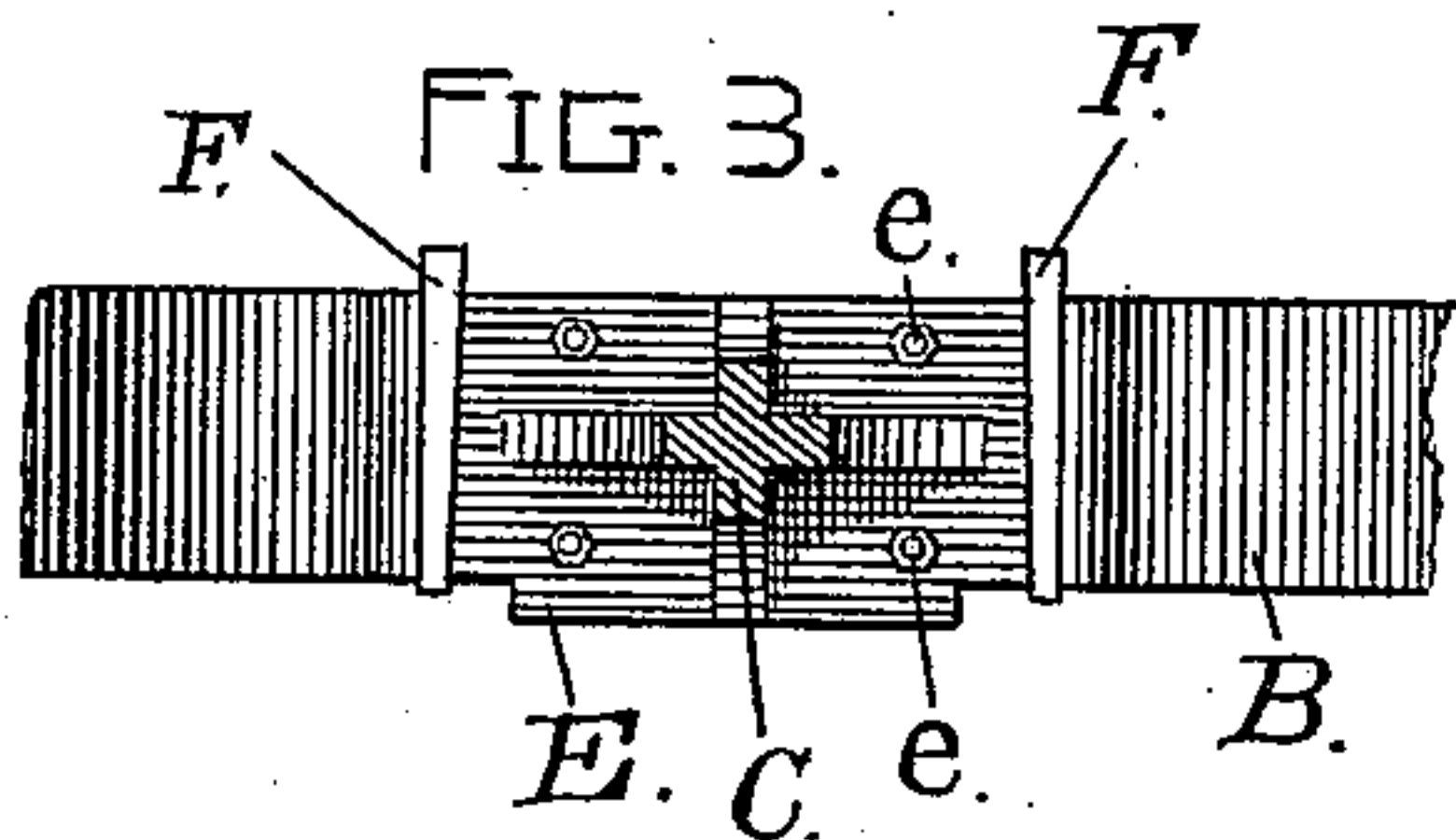
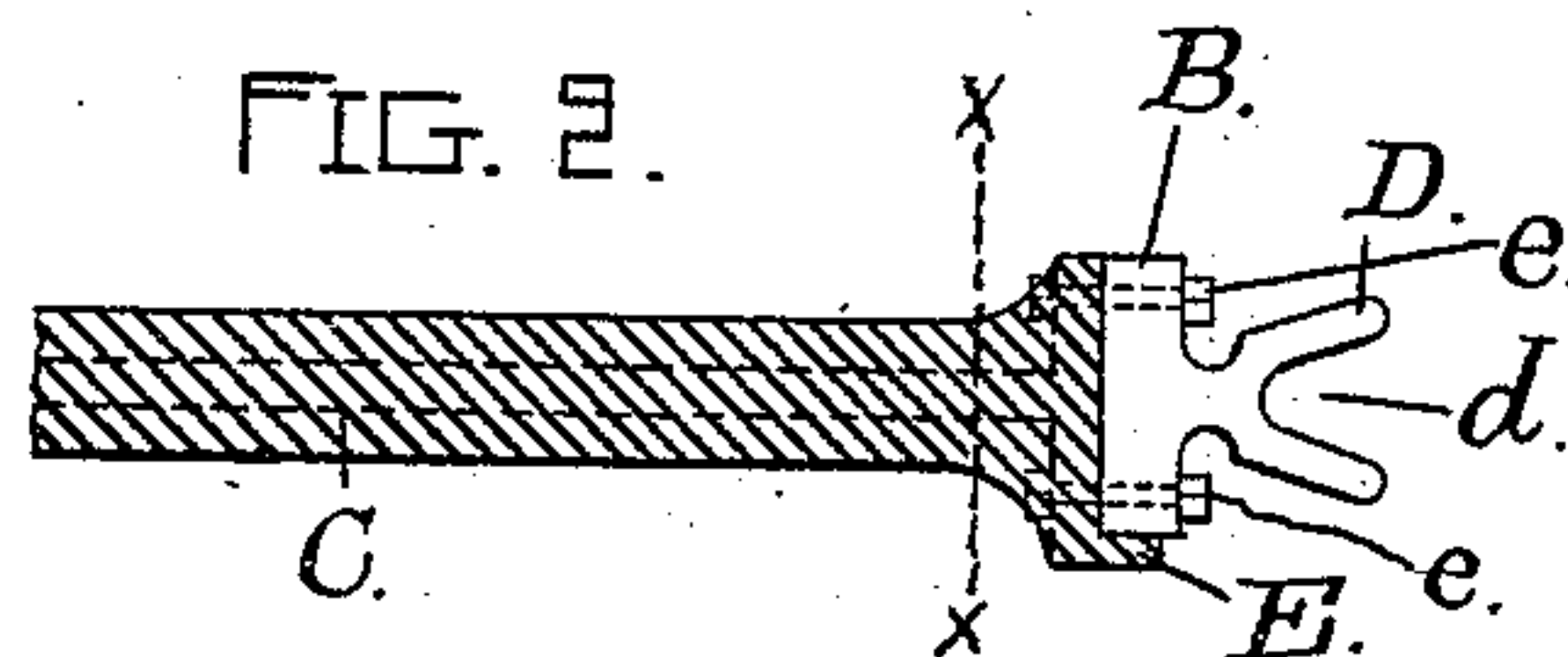
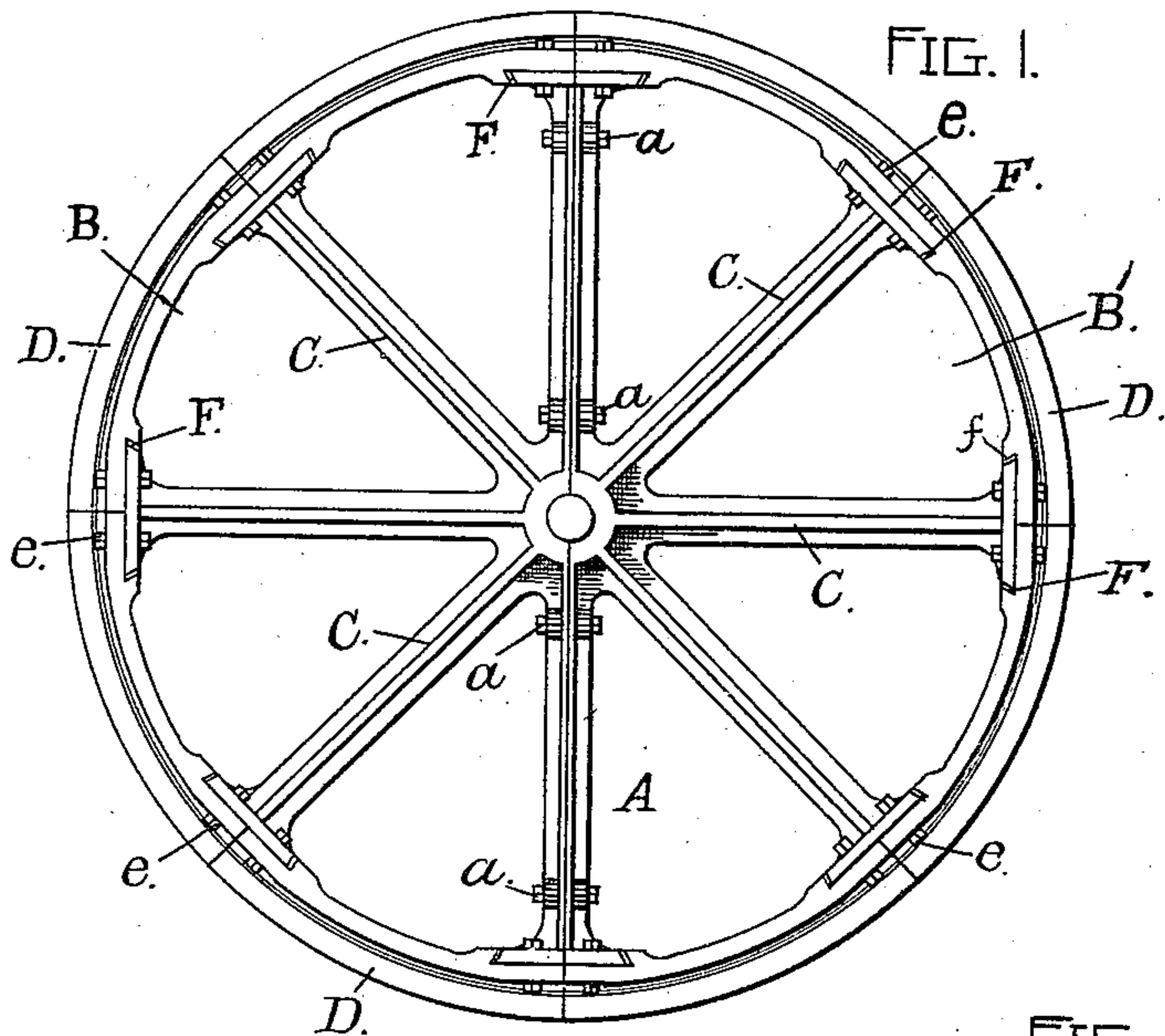


(No Model.)

F. B. WEST.
CABLE SHEAVE.

No. 431,680.

Patented July 8, 1890.



ATTEST,
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UNITED STATES PATENT OFFICE.

FREDERICK B. WEST, OF SAN FRANCISCO, CALIFORNIA.

CABLE-SHEAVE.

SPECIFICATION forming part of Letters Patent No. 431,680, dated July 8, 1890.

Application filed October 10, 1889. Serial No. 326,605. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK B. WEST, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented certain new and useful Improvements in Sheaves for Cable Railways, of which the following is a specification, reference being had to the accompanying drawings and the letters referring thereto.

My invention relates to improvements in cable-sheaves, and more particularly to that class which assumes a horizontal position in operation, the several elements of my invention being adapted to be reversed and also removed when worn or broken and replaced by new parts without deducting or interfering with the usefulness of the other portions, as will be hereinafter described.

The improvements will be fully understood from the following description and claims when taken in connection with the annexed drawings, in which—

Figure 1 is a plan view of my improved sheave complete. Fig. 2 is a longitudinal sectional view of a portion of one of the radial arms or spokes with the cable-receiving rim secured thereto, the latter being shown in elevation. Fig. 3 is a transverse sectional view taken in the line $x x$ of Fig. 2, looking toward the circumference of the sheave; and Fig. 4 is an enlarged detail elevation of a portion of one of the radial arms and the groove-rim of sheave.

In carrying out my invention the sheave A is cast or otherwise formed in two semicircular sections B B', as better illustrated in Fig. 1, each section or division being provided on its straight or connecting side with two longitudinally-divided half-spokes or radial arms, each being provided with a lateral flange on each side thereof, which, when the sections have been connected, will form two spokes or radial arms, similar in construction to the radial arms or spokes presently described. The flanges of the half spokes or arms are provided at suitable points in their length with transverse bolt-apertures to receive the bolts a , which connect the semi-spokes and the divisions of wheel together.

The radial arms or spokes C, of which there are a number consistent with the size of

wheel, are each provided with four longitudinal ribs or flanges, which in cross-section are cross shaped, as better illustrated in Fig. 3, it being apparent that this construction, while light and neat of appearance, possesses the advantage of strength and durability.

The outer end of the radial arms or spokes C are headed or spread, as illustrated, to form a seat for the reception of the grooved cable-receiving rim, and upon one side of each of these headed portions I form an outwardly-directed flange E, which forms a base-support or shelf for the said grooved rim, and the two lateral edges of each headed portion are beveled, as indicated at F, to take into the bevel recess of the peripheral sections, to be described. In the intervals between the ribs or flanges in the headed portions of the radial arms I form bolt-apertures to receive the bolts e , which connect the said headed portion to the rim-sections.

The segmental grooved rim-sections D are of a curvilinear contour to form the periphery of the sheave, and each section is of a length to bridge the space between the lateral centers of two spokes, to which it is connected by the bolts e , which pass through bolt-apertures provided in the base-band of the rim adjacent to the ends thereof.

Each of the segmental sections D is provided at its ends, upon its inner side, with a recess f , the inner wall of which is beveled to receive the beveled edge of the headed portion, whereby a secure and durable connection is effected. The groove portion of the rim is of a construction as better illustrated in Fig. 2, and the groove d is of a depth suitable to the diameter of the cable to be employed.

The central or hub portion of the sheave is re-enforced or made heavy, as illustrated in Fig. 1, to receive the shaft upon which it is mounted, which may be driven by any suitable mechanism and motive power.

By the construction described it will be seen that should one portion of the groove of rim become worn, the worn peripheral section may be reversed, and the other wall of groove take the place of the worn wall, and it will also appear that should any peripheral section become worn or broken it may be replaced by a new section without disturbing or interfer-

ing with the usefulness of the remainder of the wheel. It is also obvious that should one of the diametrical divisions of wheel become irreparably worn or damaged it may be removed and replaced with a new section without removing or deducting from the usefulness of the other section.

Having described my invention, what I claim is—

10 1. In a cable-sheave, the two diametrical sections provided with radial arms or spokes headed upon their outer ends, the lateral edges of which are beveled, and the peripheral grooved sections provided upon their
15 inner sides with recesses, the inner walls of which are beveled to receive the beveled head

of the radial arms and adapted to be secured thereto, substantially as specified.

2. A cable-sheave having the two sections adapted to be secured together by bolts, the radial arms headed at their outer ends and provided with the beveled edges and the outwardly-directed base-flange, and the grooved peripheral sections adapted to be secured to the spokes and having recesses upon their inner side, the inner walls of which are beveled to receive the beveled head of the spokes, substantially as and for the purpose specified.

FREDERICK B. WEST.

Witnesses:

J. H. REDSTONE,
E. H. THARP.