

F. STOKES.
COUPLING.
APPLICATION FILED FEB. 10, 1919.

1,307,160.

Patented June 17, 1919.

Fig. 1

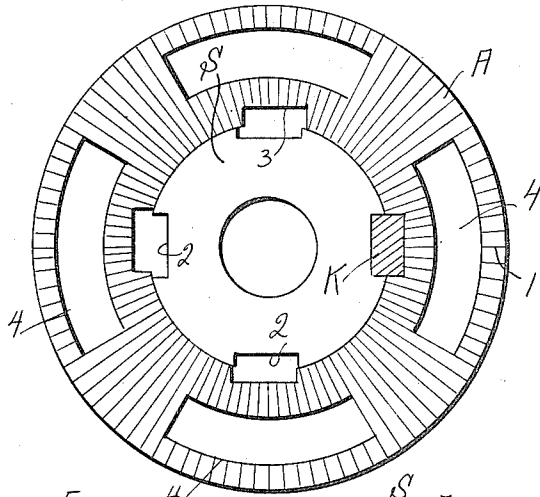


Fig. 2

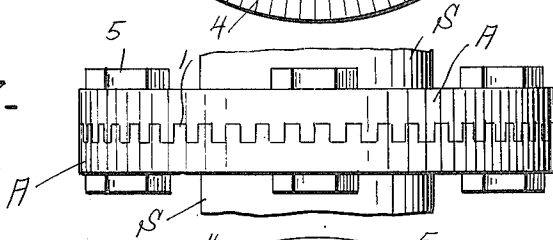
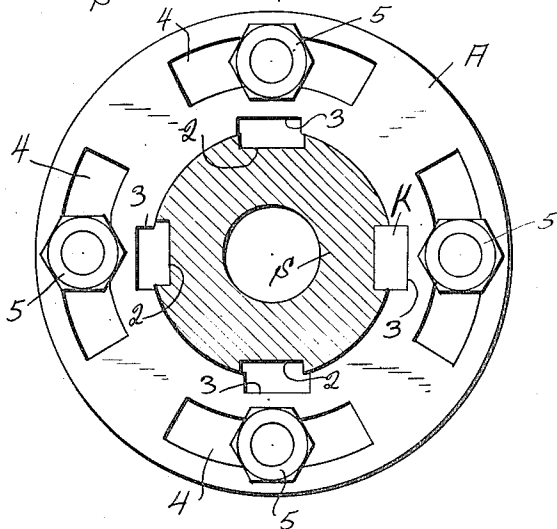


Fig. 3



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UNITED STATES PATENT OFFICE.

FREMONT STOKES, OF CLARKSVILLE, ARKANSAS.

COUPLING.

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To all whom it may concern:

Be it known that I, FREMONT STOKES, a citizen of the United States, residing at Clarksville, in the county of Johnson and State of Arkansas, have invented certain new and useful Improvements in Couplings, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in couplings, and it is an object of the invention to provide a device of this general character adapted to connect the adjacent end portions of substantially alining sections and which is operable to permit rotary adjustment of one of said sections relative to the other.

An additional object of the invention is to provide a novel and improved coupling which is particularly adapted for use in connection with separable sections of a rotary valve whereby said sections may be readily and conveniently set in accordance with the requirements of practice.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved coupling whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood I will now proceed to describe the same with reference to the accompanying drawings, wherein:—

Figure 1 is a view in elevation of the inner face of one of the sections of my improved coupling in applied position;

Fig. 2 is a view in top plan of my improved coupling as herein disclosed;

Fig. 3 is a view partly in rear elevation and partly in section illustrating my improved coupling in applied position.

My improved coupling as herein embodied is particularly adapted for use in connection with the rotary valves particularly described and illustrated in my co-pending application executed on even date herewith and as disclosed in the accompanying drawings, my improved coupling comprises two annular members A having their opposed faces provided with the radial teeth 1 adapted to mesh or interlock. Each of the members A

is keyed to the end portion of a valve section S and which end portion of the section S, as herein disclosed, is provided with four equidistantly spaced key-ways 2 adapted to register with correspondingly spaced key-ways 3 produced in the inner edge of a member A.

When a key-way 2 or 3 is in complete register to receive the key K it is to be noted that the remaining pairs of key-ways 2 and 3 are slightly offset one relative to the other and to varying degrees. As is particularly illustrated in Figs. 1 and 2 it is to be noted that the pair of key-ways 2 and 3 above the key K are offset a distance equal to substantially one-fourth the width of a tooth 1 with the next pair of key-ways offset substantially twice this distance and the remaining or lower pair offset substantially four times the distance of the first named offset pairs of key-ways. By this means it will be observed that when it is desired to effect a relative rotary adjustment of the sections A less than the width of a tooth 1, it is only necessary to remove the key K and adjust the member A and the section S until the desired second pair of key-ways 2 and 3 are brought into complete adjustment.

Each of the teeth 1 in practice is one-eighth of an inch in width and for which reason it is preferred that the key-ways 2 and 3 be offset or staggered 1/64th, 1/32nd and 1/16th, so that the key-ways 2 and 3 make it possible to obtain an unusually close or fine relative adjustment of the sections S.

The members M are each provided with a plurality of arcuate slots 4 through which are disposed the clamping bolts 5 whereby the toothed faces of said members are held in meshing or locking engagement. As is believed to be self evident the slots 4 readily permit the desired relative rotation of the members A to effect the adjustments permitted by the teeth 1.

From the foregoing description it is thought to be obvious that a coupling constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof, and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying

out my invention in practice except as hereinafter claimed.

I claim:—

1. In combination with alined members, a
5 coupling therefor comprising annular members surrounding the adjacent ends of said first named members, each of said first named members and an annular member being provided with a plurality of coacting
10 key-ways, and a key insertible within a registering pair of key-ways the remaining key-ways of the member being offset relative to the key-ways of the annular member.

2. In combination with alined members, a

coupling therefor comprising annular members engaged with the adjacent ends of the first named members and rotatably adjustable therearound, said annular members being also rotatably adjustable one relative to the other, and means for locking said annular members against relative movement. 15 20

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

FREMONT STOKES.

Witnesses:

ROBERT A. BOSWELL,
W. E. LAWSON.