E. H. HANEY.

CLUTCH.

APPLICATION FILED MAR. 19, 1912.

1,047,801. Patented Dec. 17, 1912.

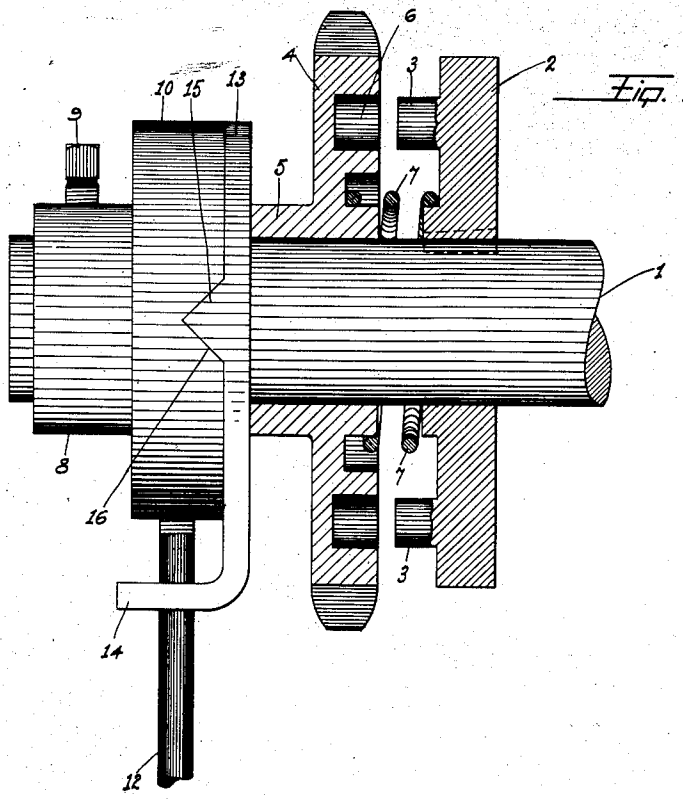

Fig. 1

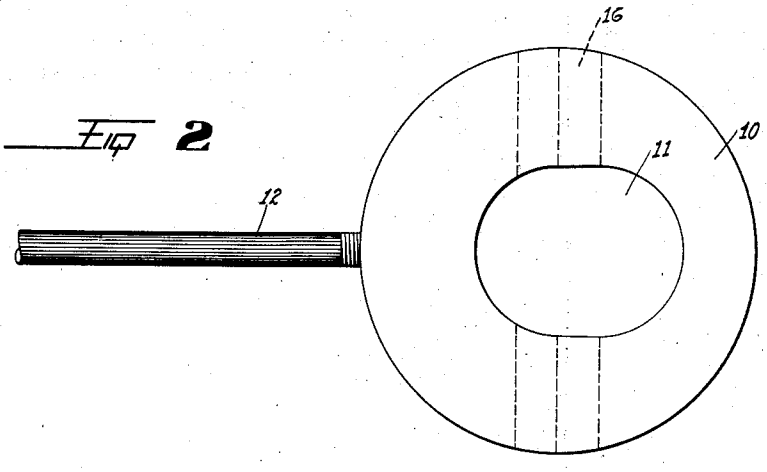

Fig 2

Witnesses
Clarence Smith
J. B. Webster

Inventor
Edwin H. Haney
By Percy S. Webster
Attorney

UNITED STATES PATENT OFFICE.

EDWIN H. HANEY, OF STOCKTON, CALIFORNIA.

CLUTCH.

1,047,801. Specification of Letters Patent. Patented Dec. 17, 1912.

Application filed March 19. 1912. Serial No. 684,688.

To all whom it may concern:

Be it known that I, EDWIN H. HANEY, a citizen of the United States, residing at Stockton, in the county of San Joaquin, State of California, have invented certain new and useful Improvements in Clutches; and I do declare the following to be a clear, full, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in clutches and it is especially designed to be used in connection with my automobile pump shown and described in application for patent Ser. No. 571017, with a purpose of connecting and disconnecting the motor of a motor vehicle from the pump driving shaft.

The object of the invention is to produce a simple and effective clutch means for connecting and disconnecting a driving shaft with a driving gear, whereby the motion of said driving shaft may be transmitted to said gear when desired for the purpose of driving any desired mechanism with said gear.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purposes for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of the parts as will fully appear by a perusal of the following specification and claim.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a side elevation partly in section of the complete clutch. Fig. 2 is a side view of a shifting disk.

Referring now more particularly to the characters of reference on the drawings, the numeral 1 designates the driving shaft. Rigidly keyed to the shaft 1 is a disk 2 provided on its face with projecting lugs 3. Slidably mounted on the shaft 1 is a gear wheel 4 having a projecting collar 5 on one side and recesses 6 in its other side, such recesses being adapted to receive the lugs 3. A spring 7 is interposed between the disk 2 and the gear 4.

The numeral 8 designates a collar fixed to the shaft 1 by means of a set screw 9.

The numeral 10 designates a disk having an elongated inner orifice 11 by which the disk 10 is mounted over the shaft 1, such disk being provided with a projecting handle member 12.

The numeral 13 designates a collar slidable on the shaft 1 between the disk 10 and the collar 5 of the gear 4, such collar being provided with a slotted guide 14 through which the handle 12 projects to hold the collar 13 at all times in the same position with respect to its turning with relation to the disk 10. The collar 13 is provided with V-shaped lugs 15 on its face adapted to project normally into recesses 16 in the disk 10.

Normally the members 5, 10 and 13 remain stationary with respect to the movement of the driving shaft 1, the disk 2 turning with the driving shaft 1. Then when it is desired to impart the motion of the shaft 1 to the gear 4, the handle member 12 is pulled, which pulls the disk 10 over the shaft 1 by reason of its rectangular recess 11. This forces it against the stationary collar 8 and the beveled edges of the V-shaped recesses 16 move against the lugs 15 and drive the collar 13 outwardly against the collar 5 and hence forces the gear 4 to receive the lugs 3 in the recesses 6, which operation causes the gear 4 to move with the movement of the shaft 1 and the disk 2. Then when the handle 12 is operated to return the disk 10 to normal position, the lugs 15 fit into the recesses 16 and all the parts are held in normal idle position by means of the spring 7.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfils the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention.

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

A device of the character described comprising a driving shaft, a disk fixed stationary on said driving shaft, lugs on said disk, a gear mounted on said shaft and having

recesses adapted to receive said lugs, a spring interposed between said disk and said gear, a collar fixed on said shaft, a disk movable over said shaft and adapted to abut against said fixed collar, said last named disk being provided with recesses in its face, another collar disposed between said gear and said last named disk and provided with V-shaped lugs projecting into said recesses in said last named disk, and an operating handle on said last named disk, as described.

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

EDWIN H. HANEY.

Witnesses:

STEPHEN N. BLEWETT,

PERCY S. WEBSTER.