This invention relates to new and useful improvements in well apparatus, and particularly to devices used in connection with swabs for oil wells.

The principal object of the invention is to provide a device of this character wherein the swab is operated by means of a cable, and wherein the pulley which is mounted on the upper end of the well, is automatic in its operation, whereby to readily permit the removal and replacement of the swab.

In devices of this character, heretofore, the swab had to be supported by hand, while the pulley was moved out of the way, and in view of the fact that the swab weighed sixty pounds, or more, such a method was tedious.

In the present device this laborious operation is obviated, because of the fact that the operator does not have to hold the swab, and does not have to move the pulley by hand.

Other objects and advantages will be apparent from the following description when taken in connection with the accompanying drawing.

In the drawing:

Figure 1 is a side elevation of the invention.

Figure 2 is a top plan view of the same.

Figure 3 is a vertical sectional view on the line 2—3 of Figure 2.

Referring particularly to the accompanying drawing, 10 represents a portion of the swabbing barrel, used in connection with an oil well, during the process of drilling same. Screwed into the upper end of the barrel is a nipple 11, which has a portion of the side of its upper end cut out, as indicated at 12. Disposed around the remaining portion of the said upper end of the barrel is a band 13, the ends of which extend horizontally outwardly from the barrel, past the cut out 12, and beyond the side of said barrel. Carried by the outer end portions of the said band ends are the pivot bolts 15', which pivotally support the yoke 14, whose right portion is arranged to lie outwardly of the ends of the band. Disposed transversely through the intermediate portions of the arms of the yoke is a pivot or shaft 15, on which is mounted the grooved wheel or pulley 16, said pulley being arranged between the said ends of the band. In the upper edge of each of said band ends, inwardly of the pivots 15, is a notch 17 which is arranged to receive the end portions of the shaft 15, between the pulley and the arms of the yoke, as clearly seen in the top plan view, Figure 2, when the yoke is swung down into the position shown in full lines in Figure 1. This places the pulley partly within the nipple, so that the cable 18, which runs in said pulley, is disposed in the approximate center of the barrel, so that the swab may be more efficiently operated in said barrel. To the cable is connected the swab 19, which is operable within the barrel, in a manner well known.

In the normal working position of the device, the yoke 14 is in lowered horizontal position, as shown in the full lines in Figure 1, with the shaft ends seated in the notches of the band ends, and the pulley 16 lying partly within the barrel. The cable operates over or through the pulley, to cause the reciprocation of the swab 19, in the barrel. When it is desired to remove the swab from the barrel, the operator draws said swab upwardly in the barrel until said swab engages with the pulley, when further upward movement of the swab will cause the yoke to swing over into the position shown in dotted lines, in Figure 1, thereby readily permitting the swab to be taken out. Upon again placing the swab in the barrel, and lowering same therein, the yoke, with its pulley, will fall back into its full line position of Figure 1, by gravity. Thus the operator does not have to hold the heavy swab, while placing the pulley out of the way of said swab, nor does he have to touch the pulley, thereby rendering the device automatic in its action, and simplifying the operation of removing and replacing the swab, as well as lessening the time and labor required for this operation.

Formed in the shaft 16 is a lubricant passage, which is shown at 20, and which extends through one end of said shaft. Removably secured in this end of the passage is a pressure lubricant cup 21, for feeding lubri-
cant to the shaft, and to the hub of the
wheel 16.

The yoke 14 is provided with a handle 22,
on its bight portion, so that the wheel may
be swung into and out of the casing 11, by
hand.

What is claimed is:

1. An attachment for the working barrel
of a well swab comprising a bracket on the
barrel, and a pulley carrying frame mounted
on the bracket for movement to place the
pulley partly within the barrel and to re-
move the same therefrom.

2. An attachment for the working barrel
of a well swab comprising a pulley supported
on the barrel and movable toward the barrel
by gravity and movable away from the bar-
rel by the swab.

3. An attachment for the working barrel
of a well swab comprising a nipple mounted
on the upper end of the barrel, said nipple
having an opening in one side thereof, and
a pulley mounted on the nipple for move-
ment into and out of the opening.

4. An attachment for the working barrel
of a well swab comprising a swab rope en-
gaging pulley mounted thereon, said pulley
being movable by the outcoming swab into
a position away from the barrel and movable
by gravity toward the barrel after insertion
of the swab into the barrel.

In testimony whereof, I affix my signature.

SAMUEL W. GORDON.