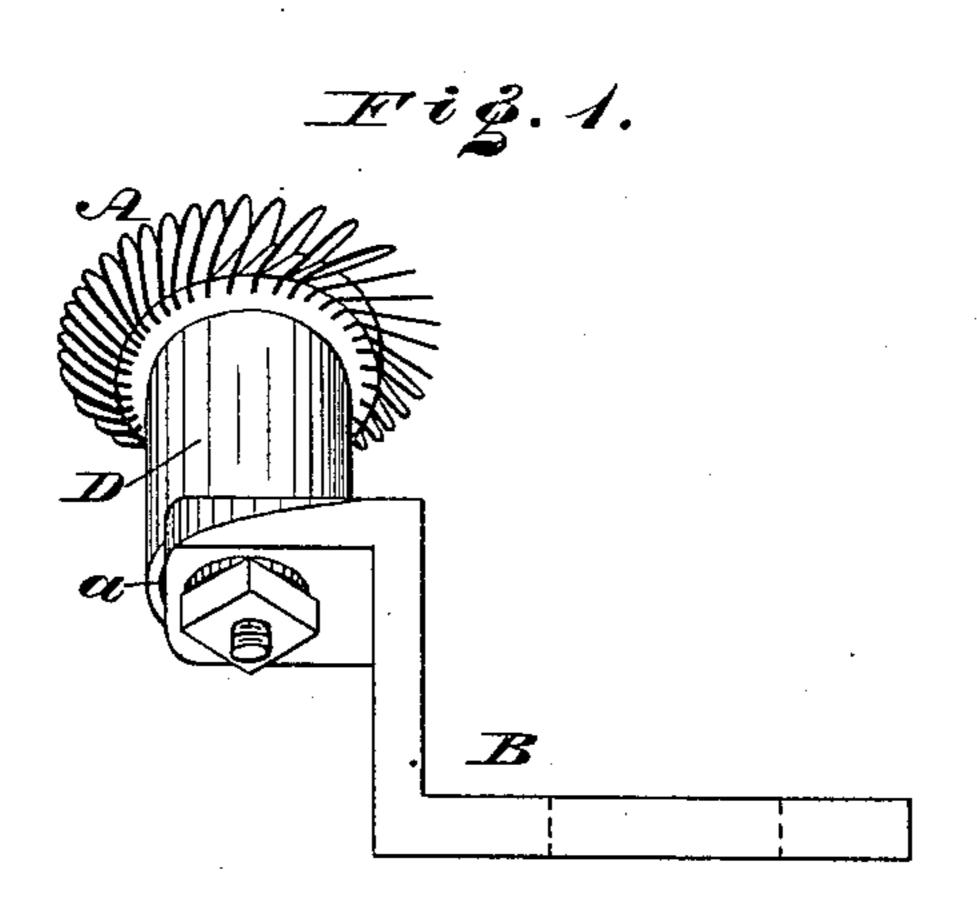
(No Model.)

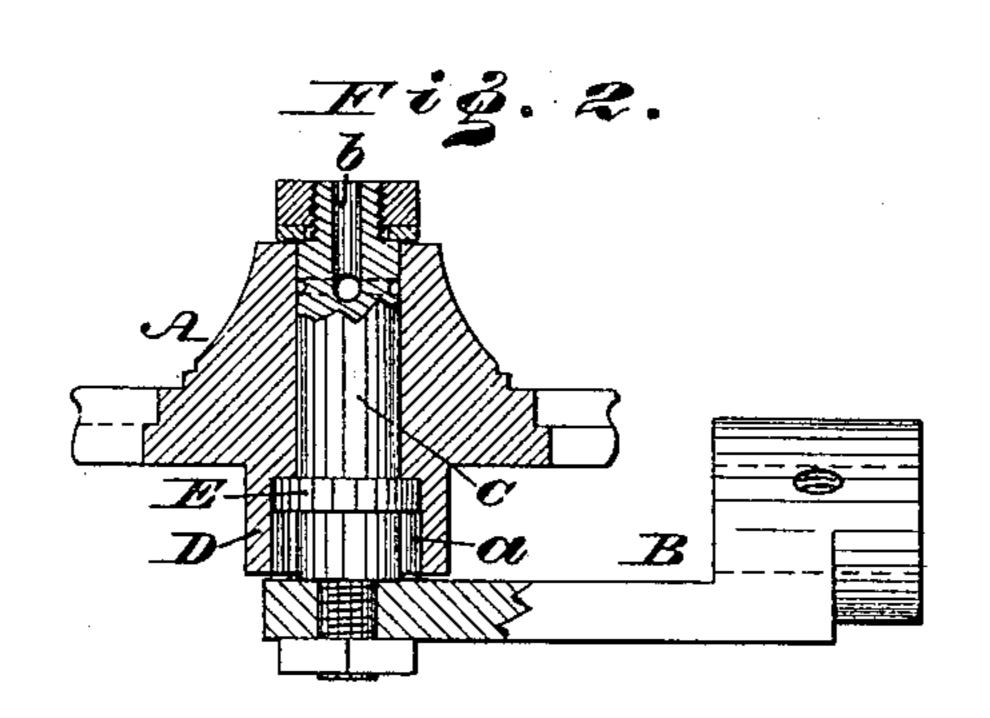
## D. H. HILL.

## KNITTING MACHINE WHEEL.

No. 366,481.

Patented July 12, 1887.





WITNESSES:

## United States Patent Office.

DAVID H. HILL, OF PHILADELPHIA, PENNSYLVANIA.

## KNITTING-MACHINE WHEEL.

SPECIFICATION forming part of Letters Patent No. 366,481, dated July 12, 1887.

Application filed November 6, 1886. Serial No. 218,149. (No model.)

To all whom it may concern:

Be it known that I, DAVID H. HILL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Knitting-Machine Wheels, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents a side elevation of a knitting-machine wheel embodying my invention. Fig. 2 represents a partial side elevation and partial vertical section of another form of knitting machine wheel embodying my invention.

Similar letters of reference indicate corre-

sponding parts in the two figures.

My invention consists of a knitting-machine wheel having means connected therewith for preventing the yarn or thread from fouling or winding around the supporting-stud or entering between the wheel proper and stud, as hereinafter set forth and claimed.

It further consists of the combination and arrangement of parts, as hereinafter set forth

and claimed.

Referring to the drawings, A represents a

knitting-machine wheel.

B represents an arm which is secured to a suitable part of the machine and has secured to it in any suitable manner the stud C, on which the wheel is mounted.

On the lower side of the wheel is a sleeve, D, which is cast with or secured to the body of the wheel, and on the stud is a collar or shoulder, E, so that the diameter of the portion of the stud below said collar or shoulder is less than that of the collar or shoulder, whereby a space, a, exists between the sleeve 40 D and the stud C.

It will be noticed that the sleeve D reaches closely to the arm B, so that there is no material space left between them, and the lower portion of the stud C is completely inclosed by said sleeve. Consequently, when the wheel

is in operation, should any yarn or thread pass under the wheel, it may be thrown off by the sleeve or wind around the same, and thus be prevented from reaching the stud C. Should, however, such yarn or thread or small 50 pieces of the same, lint, &c., pass under the lower edge of the sleeve, and so reach the stud C, it may wind around the latter and occupy the space a, the collar or shoulder E, however, serving as a barrier to the ascent of the 55 yarn, &c., and preventing it from fouling around the stud and the wheel proper.

The stud C has a duct, b, which leads from the upper end of said stud to the periphery thereof, so that oil or lubricant may be sup-60 plied to said duct and discharged at the periphery of the stud, thus lubricating the

wheel A.

Having thus described my invention, what I claim as new, and desire to secure by Let- 65 ters Patent, is—

1. A knitting-wheel having a sleeve, D, in combination with the stud C, having collar E, and the arm B, the said stud and collar forming with said sleeve the recess a, all sub-70 stantially as and for the purpose set forth.

2. A knitting-machine wheel having a sleeve and the stud of said wheel having a collar, combined substantially as described, whereby the thread, yarn, &c., are prevented, 75 first, from reaching the stud, and, next, from ascending the stud to the wheel proper, as stated.

3. A knitting-machine wheel having a sleeve depending therefrom, as described, with 80 a supporting-stud formed with a recess therein, and with a duct leading from the recess, and having a collar thereon, the stud and collar forming with the said sleeve a recess, a, said parts being combined substantially as de-85 scribed.

DAVID H. HILL.

Witnesses:

JOHN A. WIEDERSHEIM, A. P. GRANT.