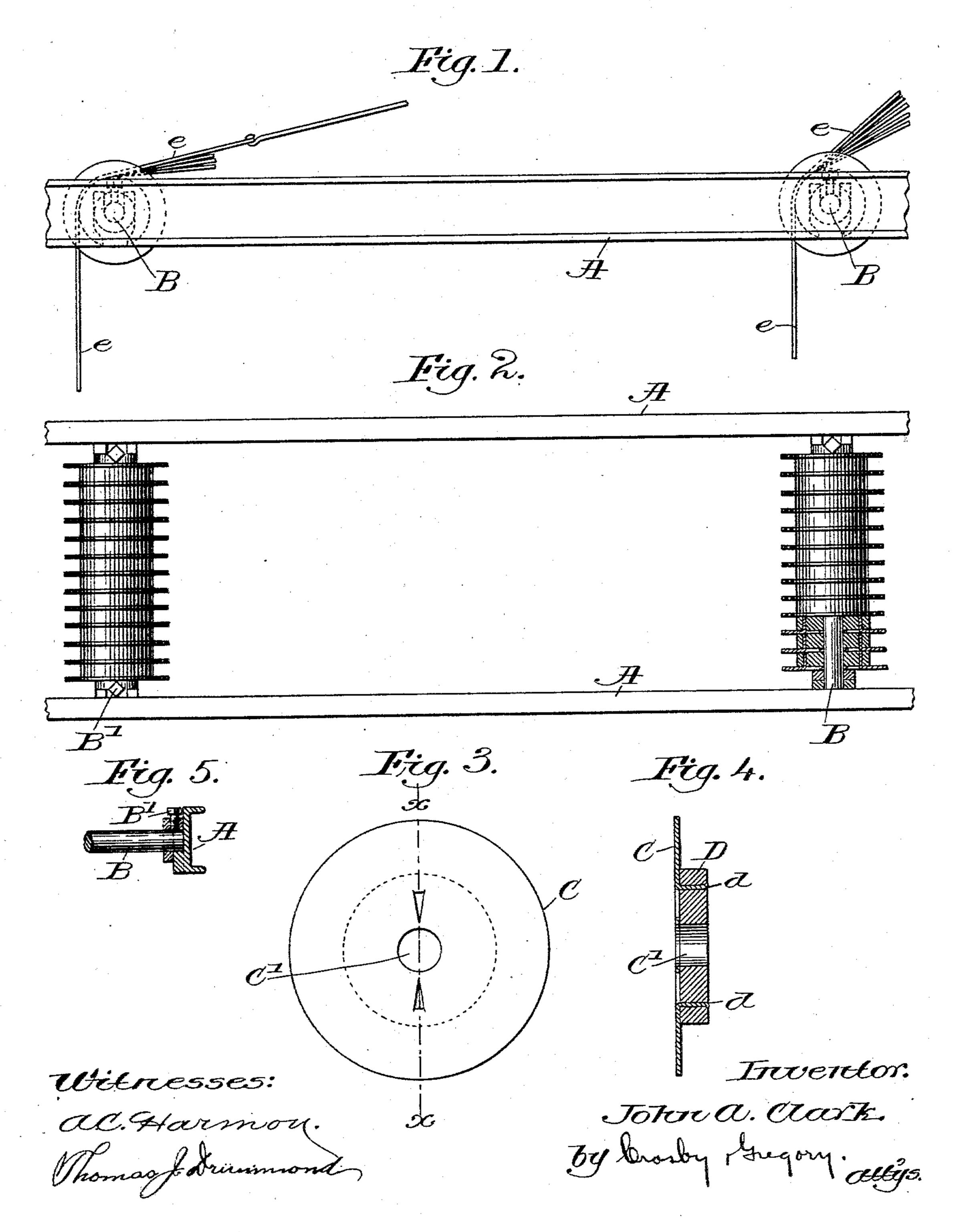
(No Model.)

## J. A. CLARK. SHEAVE.

No. 589,560.

Patented Sept. 7, 1897.



## UNITED STATES PATENT OFFICE.

A CARRI ARE CHARRENTE OR IT CRECIPLEMENTALES THARDOLF CHARDITA OF STREETS AND TRANSPORT OF TAXAL CROMPTON & KNOWLES LOOM WORKS, OF SAME PLACE.

## SHEAVE.

SPECIFICATION forming part of Letters Patent No. 589,560, dated September 7, 1897.

Application filed February 25, 1897. Serial No. 624,938. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. CLARK, of Worcester, county of Worcester, State of Massachusetts, have invented an Improve-5 ment in Sheaves, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In looms and other machines it is customary 10 to guide straps or cords over sheaves to thus obviate friction.

This invention has for its object the production of a novel, cheap, and durable sheave.

My improved sheave consists, essentially, 15 of a metallic disk having secured to one side of it a hub. This hub will preferably be nonmetallic, and the disk and hub will preferably be united by a prong or prongs struck up or turned out from the disk and entering the 20 hub.

Figure 1 shows the top of a loom-frame provided with two sets of sheaves embodying my invention; Fig. 2, a top or plan view thereof; Fig. 3, a face view of one of the sheaves en-25 larged; Fig. 4, a section on the line x, Fig. 3; and Fig. 5 a cross-section of one part of the loom top, showing a part of one stud on which the sheaves are mounted to turn.

A represents part of a loom or other frame 30 on which the sheaves are to be supported, said frame having suitable studs or rods B, held in place by set-screws B'.

Each sheave is composed of a metallic disk C, having a central hole C' to fit over the stud, 35 and a hub D, the two being united side by side by means of fastenings d, said fastenings

for greater cheapness and secure from displacement being shown as formed by punching them back from the disk C. In this way each sheave consists of but one disk and an 40 attached hub, and the end of the hub of one disk by fitting closely against the outer face of a disk attached to another hub utilizes that disk as a guide for the straps or cords e, and the operation is just as efficient as though 45 each hub had a disk attached to it at each end; but by using one disk for each hub the frictional resistance which has to be overcome before the sheaves can turn is greatly reduced, and, further, by omitting from one 50 end of each hub a disk it is possible to arrange a greater number of sheaves in a given space, and so a greater number of harness-frames might be used in a loom, the cord or straps shown being attached to harness-frames in 55 any usual manner.

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

The combination with a stud or rod B, of 60 a series of sheaves each composed of a metallic disk and a hub, the free end of the hub abutting and turning against the outer face of a disk attached to another hub, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN A. CLARK.

Witnesses:

JUSTIN A. WARE, SAMUEL B. SCHOFIELD.