(No Model.)

C. F. POPE.

SCREW PULLEY.

No. 293,078. Patented Feb. 5, 1884.

Fig. 1

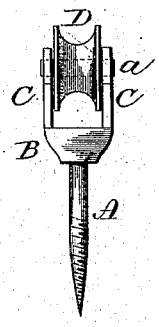


Fig. 2

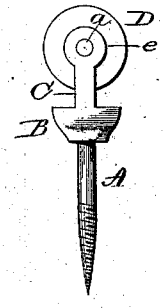


Fig. 6

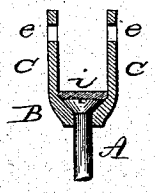


Fig. 3

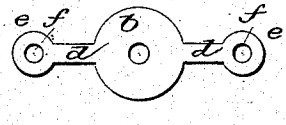


Fig. 7

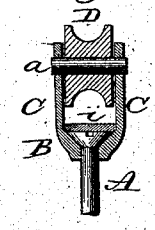


Fig. 4

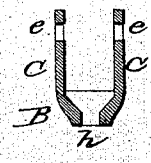


Fig. 5



Witnesses.
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UNITED STATES PATENT OFFICE.

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SCREW-PULLEY.

SPECIFICATION forming part of Letters Patent No. 293,078, dated February 5, 1884.

Application filed November 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. POPE, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Screw-Pulleys; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, an edge view, and Fig. 2 a side view, of the pulley complete; Fig. 3, the blank as cut from sheet metal; Fig. 4, a vertical section of the same struck up; Fig. 5, the screw detached; Fig. 6, a vertical section, showing the base and arms attached to the screw; Fig. 7, a vertical section of the article complete.

This invention relates to an improvement in that class of pulleys which are constructed to be screwed into the ceiling or other desired position, over which a light cord is run, commonly called "screw-pulleys." In the usual construction of this class of pulleys a common headed wood-screw is employed for the shank, and onto this shank a base with two arms projecting therefrom in a plane parallel with the axis of the shank is cast in molds, then the arms drilled, the pulley introduced between the arms, and the pivot inserted through the arms and pulley, then riveted down. The cast-metal portion requires to be finished, and such finishing must be done by mechanical manipulation—always an expensive part in the manufacture of such articles.

The object of my invention is to construct the base and arms from a single piece of sheet metal and unite them to the head of the screw, whereby the expensive finishing operation is avoided; and the invention consists in such a pulley, as more fully hereinafter described, and particularly recited in the claim.

In general appearance the screw-pulley is the same as the usual construction.

A is the screw; B, the base from which arms C C project, parallel to each other and to the axis of the shank, the line of the shank being centrally between the two arms; D, the grooved pulley which is arranged between the arms, and supported therein upon a pivot, *a*, introduced through perforations in the arms and through the pulley, so as to leave the pulley free to revolve.

Instead of casting the base and arms upon the screw, as in the usual construction, I cut a blank from sheet metal—say as seen in Fig. 3. This blank has a central disk, *b*, from which, at diametrically-opposite points, arms *d* project, terminating in a rounded end, *e*. These ends are centrally perforated, as at *f*. Then in suitable dies this blank is struck to draw the central part, *b*, into the form of the base B, and the arms *d d* turned up parallel to each other to form the completed arms C C.

Centrally through the bottom of the base is a hole, *h*, corresponding to the diameter of the screw-shank A. This screw-shank is a common nicked-headed wood-screw. The screw-shank is introduced between the arms, and passed down through the opening *h* until the head comes to a bearing at the bottom of the base, as seen in Fig. 6. Then upon the top of the head and within the base solder or other suitable metal, *i*, is introduced, which will adhere to the walls of the base, and, entering the nick of the head, will not only secure the base to the screw, but prevent the one from turning upon the other. The pulley D is then introduced between the two arms and the rivet inserted, as seen in Fig. 7, which completes the articles. By this construction the base and arms are formed complete from sheet metal, the surface of which is already finished, and thus I avoid the expensive mechanical operations required in finishing the cast-metal article. The cost of making the article from sheet metal is little, if any, more than that of molding and casting, heretofore practiced, so that I make substantially a saving in the article of the cost of finishing, and the article is better in that the arms and base are perfectly uniform and symmetrical as to shape and thickness—a result almost impossible where the article is finished by mechanical operations.

I have described the base and arms as made

by first striking the blank and then drawing it up; but it will be understood that this may be performed at a single operation, if desired.

I claim—

The herein-described screw-pulley, consisting of the base B and arms C C, struck from sheet metal, the headed screw-shank A introduced through the base between the arms and secured therein, with the pulley arranged upon a pivot between the arms, substantially as described.

CHAS. F. POPE.

Witnesses:
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HENRY S. CHASE.