(No Model.)

D. BABCOCK.

SPROCKET WHEEL FOR TENTERING MACHINES.

No. 471,529. Patented Mar. 29, 1892.

Fig. 1.

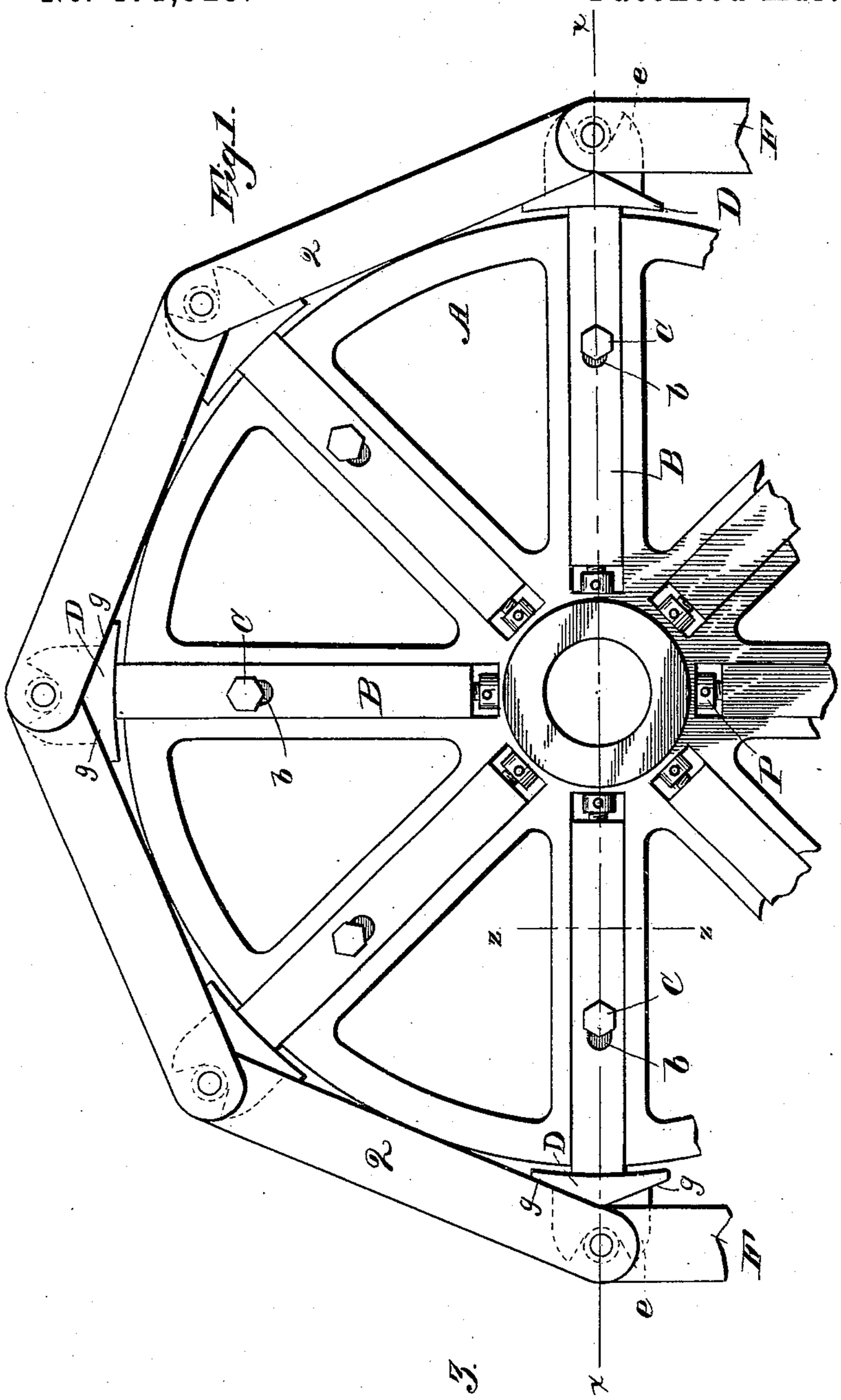

Fig. 2.

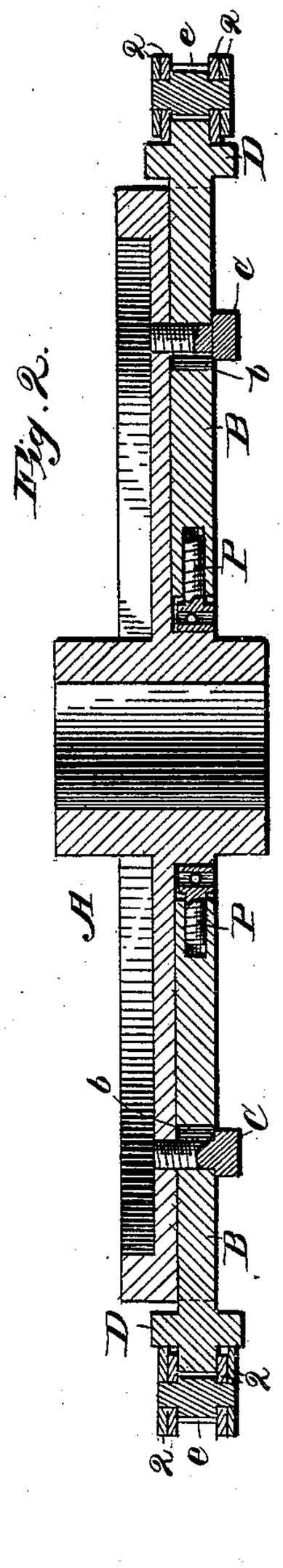

Fig. 3.

Witnesses
A. Lachman.
Wm. J. Little

Inventor
Darius Babcock.
By Arthur W. Harrison
Attorney

UNITED STATES PATENT OFFICE.

DARIUS BABCOCK, OF MERIDEN, CONNECTICUT.

SPROCKET-WHEEL FOR TENTERING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 471,529, dated March 29, 1892.

Application filed July 24, 1891. Serial No. 400,657. (No model.)

To all whom it may concern:

Be it known that I, DARIUS BABCOCK, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Sprocket-Wheels for Tentering-Machines; and I do declare the following to be a full, clear, and exact description of the invention, 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 letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in sprocket or chain carrying and driving wheels. It is more particularly designed for use in tentering-machines, but is applicable to other purposes. It is specially adapted to machines for painting and sizing cloth for window-shades. Heretofore machines of this description have been provided with solid wheels, which in practice have been found to give unsatisfactory results.

The object of the present invention is to obviate wholly or in part the defects existing in machines of this character by providing them with a wheel fitted with radial adjustable arms, the details of which will be more fully hereinafter set forth.

In the drawings, Figure 1 represents a side elevation of a wheel provided with adjustable arms, and is well calculated to convey an idea of my invention. A section of the wheel is broken away in Fig. 1 to facilitate illustration. Fig. 2 is a view in section of Fig. 1, taken through the line X. Fig. 3 is also a section of Fig. 1, taken through line Z.

Similar letters and figures refer to similar parts throughout the several views.

The wheel or pulley A constitutes the body of the device and is provided with radial grooves or channels *a* for the reception of the adjustable sprocket-arms B. Elongated holes or slots are formed in the shanks of the sprocket-arms, as shown at *b*. The sprocket-arms are held in position by the bolts or screws C, which engage with the threaded holes in the arms of the wheel A in a manner thought to be too well understood to require further explanation.

Head-pieces D are formed near the outer ends of the sprocket-arms and beyond the rim of the wheel A for the purpose of forming a support for the side bars 2 of the chain F, thereby relieving a portion of the strain which would come otherwise entirely upon the cross-bars or pivots *o* of the chain F. These head-pieces D are beveled, as at *g g*, from their transverse centers to each end, whereby the adjacent beveled surfaces of two adjoining head-pieces are in the same plane and form flat rests for the engaging side bars of the chain, as clearly shown in Fig. 1 of the drawings. The angles of the head-pieces are determined by the number of sprocket-arms employed. The extreme outer ends of the arms are formed into transversely-slotted forks *e* for the reception of the cross-bars of the chain as the wheel revolves. An adjusting-screw is introduced into the inner end of the sprocket-arm, as shown at P, for the purpose of adjusting the same by forcing the arm outwardly, when required. The chain F forms no part of the present invention, but is shown to illustrate the manner in which it engages the sprocket-arms.

In machines of the character referred to in the foregoing a steady and uniform motion is absolutely necessary for the production of perfect goods, and where solid wheels are employed the wear of the same at the points of contact and the stretch of the chain occasions a slipping of the points of contact, which produces an unsteady jerking motion, which frequently tears and otherwise injures the fabric; but with my improved wheel all wear and stretch may be readily compensated by forcing the sprocket-arms outward until they register perfectly with the cross-bars of the chain. This may be accomplished by turning the adjusting-screw in the proper direction, since the head of the screw rests against the hub of the wheel, as shown at 3.

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

A sprocket-wheel provided with a series of radially-disposed and adjustable arms, said arms carrying at their free ends a head beveled from its transverse center to each end, for the purpose specified, and transversely-slotted forks projecting centrally from said heads, substantially as set forth.

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

DARIUS BABCOCK.

Witnesses:
FRANK S. FAY,
JOHN TREDENNICK.