T. BRIGGS.
Cam Slide.

No. 233,398. Patented Oct. 19, 1880.

Fig: 1.

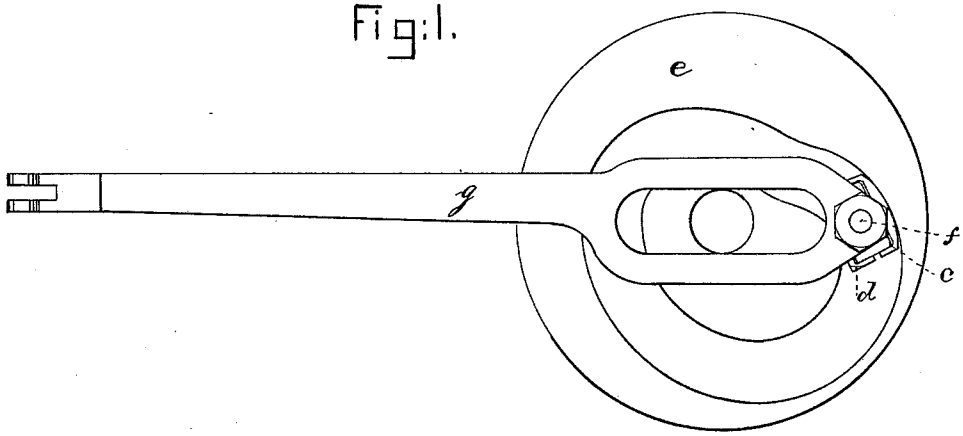
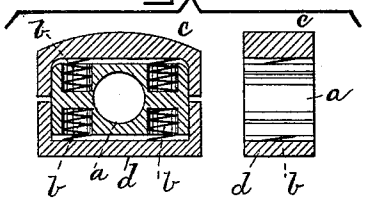


Fig: 2



Witnesses.
L. F. Connor
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UNITED STATES PATENT OFFICE.

THOMAS BRIGGS, OF LYNN, MASSACHUSETTS.

CAM-SLIDE.

SPECIFICATION forming part of Letters Patent No. 233,398, dated October 19, 1880.

Application filed February 27, 1880. (Model.)

To all whom it may concern:

Be it known that I, THOMAS BRIGGS, of Lynn, county of Essex, State of Massachusetts, have invented an Improvement in Cam-Slides, of which the following description, in connection with the accompanying drawings, is a specification.

This invention relates to cam slides or blocks to travel in cam-grooves in mechanism where it is desired to convert rotary into reciprocating motion, as in sewing and other machines.

In this my invention the cam-slide is shown within the cam-groove of a rotatable hub, such as used in the well-known Wheeler & Wilson sewing-machine, to actuate the take-up devices.

Cam-slides before this my invention have been made adjustable to compensate for wear by means of screws, and they have also been made of two blocks, made wedging at each end and concaved at their centers to embrace an annular collar on a stud, and a single spiral spring between the said blocks at one end to press their outer faces against the walls of the cam-groove. This outward pressure of the blocks by the spring causes them to loosen their connection with the collar that carries them.

My invention consists in a cam-slide composed of a center block provided at each side with springs and of independent inclosing-shoes, preferably of steel, fitted to the center block and guided by it so as to move on the block only in a line at right angles to the width of the cam-groove, the ends of the shoes taking and always maintaining a bearing on the block, the latter always acting as a guide for the shoes, and always driving them positively, the said springs operating under all circumstances to automatically keep the shoes in contact with the walls of the cam-groove, thus obviating all noise or lost motion of the device reciprocated by the said cam-groove.

Figure 1 represents, in elevation, one end of a grooved rotatable cam-hub with one of my improved cam-slides fitted therein, the said cam-slide being connected with and so as to reciprocate a link, which may be, for instance, as the take-up moving link in the Wheeler & Wilson sewing-machine; and Fig. 2 represents sectional details of the said cam-slide.

The cam-slide is composed of a central block, *a*, chambered at each edge, as shown in the section Fig. 2, to receive the quick-acting springs *b*. This block *a* is surrounded by the divided, separable, or two-part steel shoe *c d*, the bent ends of the shoes embracing the ends of the block, and are guided by it as the shoes move outward under the control of the springs. The springs *b* act constantly to keep the faces of the said shoes at each end of each shoe always in contact with the walls of the rotatable grooved cam-hub *e*.

The pin *f*, that joins the link *g* to the cam-slide, enters the central oblong four-sided block. This block receives the springs and practically conceals them from dust and dirt, and so that they cannot become detached.

I claim—

As an improved article of manufacture, the herein-described cam-slide, it being composed of the central block, *a*, provided with openings to inclose the springs, the shoes *c d*, having their ends bent to embrace the block at its side and ends, and the springs to keep the shoes closely against the walls of the cam-groove in which the said cam-slide moves, all substantially as shown and described.

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

THOMAS BRIGGS.

Witnesses:

G. W. GREGORY,

L. C. CONNOR.