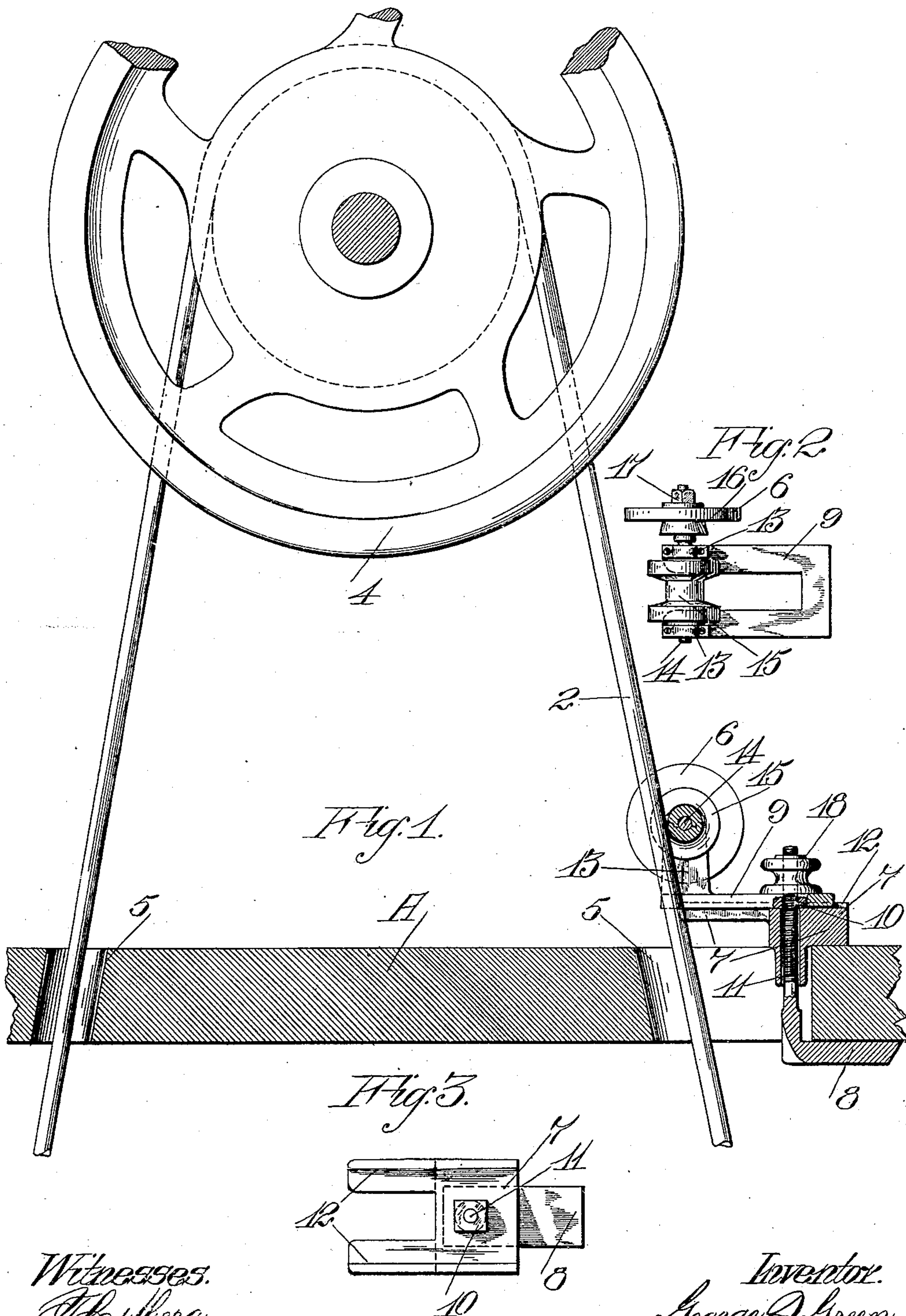


G. I. GREEN.
GRINDING ATTACHMENT FOR SEWING MACHINES.
APPLICATION FILED JUNE 24, 1908.

931,597.

Patented Aug. 17, 1909.



Witnesses.
Hastberg
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UNITED STATES PATENT OFFICE.

GEORGE I. GREEN, OF SAN FRANCISCO, CALIFORNIA.

GRINDING ATTACHMENT FOR SEWING-MACHINES.

No. 931,597.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed June 24, 1908. Serial No. 440,152.

To all whom it may concern:

Be it known that I, GEORGE I. GREEN, citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Grinding Attachments for Sewing-Machines, of which the following is a specification.

My invention relates to grinding devices, and pertains especially to a simple, practical attachment for an ordinary sewing-machine for sharpening scissors and the like.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a vertical section of grinder. Fig. 2 is a view of member 8 in plan. Fig. 3 is a view of member 7 in plan.

In the present instance I have illustrated the invention in conjunction with a sewing-machine, but manifestly it is capable of use in other environments.

As here shown, A represents the table of an ordinary sewing-machine, and 2 the usual leather cord belt for transmitting the power from the power wheel to the wheel 4 of the sewing-machine proper. Usually the belt cord passes down through a slot 5 in the table top.

My invention comprises a clamp adapted to be secured to the table adjacent to the belt 2, and provided with adjustable means for moving a friction pulley into and out of operation with the belt 2, for the purpose of operating a carborundum or like grinding wheel 6; in conjunction with a suitable gage holder for the scissors or other tool to be ground, all as will now be explained.

The clamp comprises two members 7 and 8; the plate 7 being disposed on the top of the table and slotted to accommodate the belt 2. The sides of the plate 7 are suitably channeled or otherwise constructed, so as to form guide-ways for the grinder carrier 9 to slide back and forth or toward and from the belt 2. The movable clamp member 8 passes up through the clamp member 7, and a square nut 10, may be screwed down on the threaded stem 11 of the clamp member so as to draw the members 7 and 8 snug together and lock them onto the table with the top member 7 straddling the cord 2, as shown.

The carriage 9 is of any suitable construction and preferably slotted so as to slide back

and forth in the longitudinal guides 12 on top of the clamp plate 7 and to straddle the nut 10. The forked end of the carriage 9 carries two uprights 13, in which is journaled a shaft 14. This shaft carries a fixed friction pulley 15, and also carries the grinder 6. Arranged on one side or the other of the grinder, and, as here shown, between the grinder and the side of the frame 9, is a gage member 16, preferably in the shape of a frustum of a cone, and with the smaller end of the cone forming a shoulder against which the abrading member 6 abuts. A nut 17 screws on to the outer end of the shaft 14 and locks the abrading wheel 6 up against the gage 16.

In practice, the clamp is suitably secured to the table so that the base plate 7 straddles the pulley cord, and with the friction pulley 15 movable toward and from the pulley cord and into and out of contact therewith. When it is desired to sharpen a pair of scissors, or otherwise employ the abrading device, the carriage 9 is shifted forward so as to carry the pulley 15 into suitable frictional contact with the cord 2. The clamp nut 18 is then tightened on the stem 11 so as to lock the carriage 9 securely in position. If the sewing-machine treadles are then operated, the movement of the cord will impart a rapid, rotary motion to the grinder, and all the operator has to do is to rest the blade of the scissors against the beveled surface of the gage 16, with the edge of the blade pressed against the flat surface of the grinding stone 6; the angle included between the inclined surface of the gage 16 and the vertical surface of the grinder being such as to produce the desired bevel on the edge of the blade.

This invention is readily adaptable to any sewing-machine, and manifestly may be used in connection with machines other than sewing-machines.

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

1. A grinding device comprising a clamp, said clamp comprising a slotted member to accommodate a pulley cord, a suitable support for the clamp and a slotted slidable carriage carried by the clamp, with adjusting means for securing the carriage in position, and a grinding member mounted on said carriage.

2. A grinding device comprising a clamp,

said clamp comprising a slotted member to accommodate a pulley cord, a suitable support for the clamp and a slotted slidable carriage carried by the clamp, with adjusting
5 means for securing the carriage in position, a shaft journaled on the carriage, a friction pulley mounted on the shaft and in the plane of the slots in said carriage and clamp, and a grinding member on said shaft.

10 3. A grinding device comprising a clamp, said clamp comprising a slotted member to accommodate a pulley cord, a suitable support for the clamp and a slotted slidable carriage carried by the clamp, with adjusting

means for securing the carriage in position, 15 a shaft journaled on the carriage, a friction pulley mounted on the shaft and in the plane of the slots in said carriage and clamp, a grinding member on said shaft, and a frusto-conoidal gage on the shaft having its smaller 20 end abutting against said grinding member.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE I. GREEN.

Witnesses:

CHARLES A. PENFIELD,
CHARLES EDELMAN.