No. 619,697. Patented Feb. 14, 1899.

# G. P. & H. J. SCHLEMMER.

## RUG MATERIAL RAVELING MACHINE.

(Application filed Sept. 25, 1897.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 2.

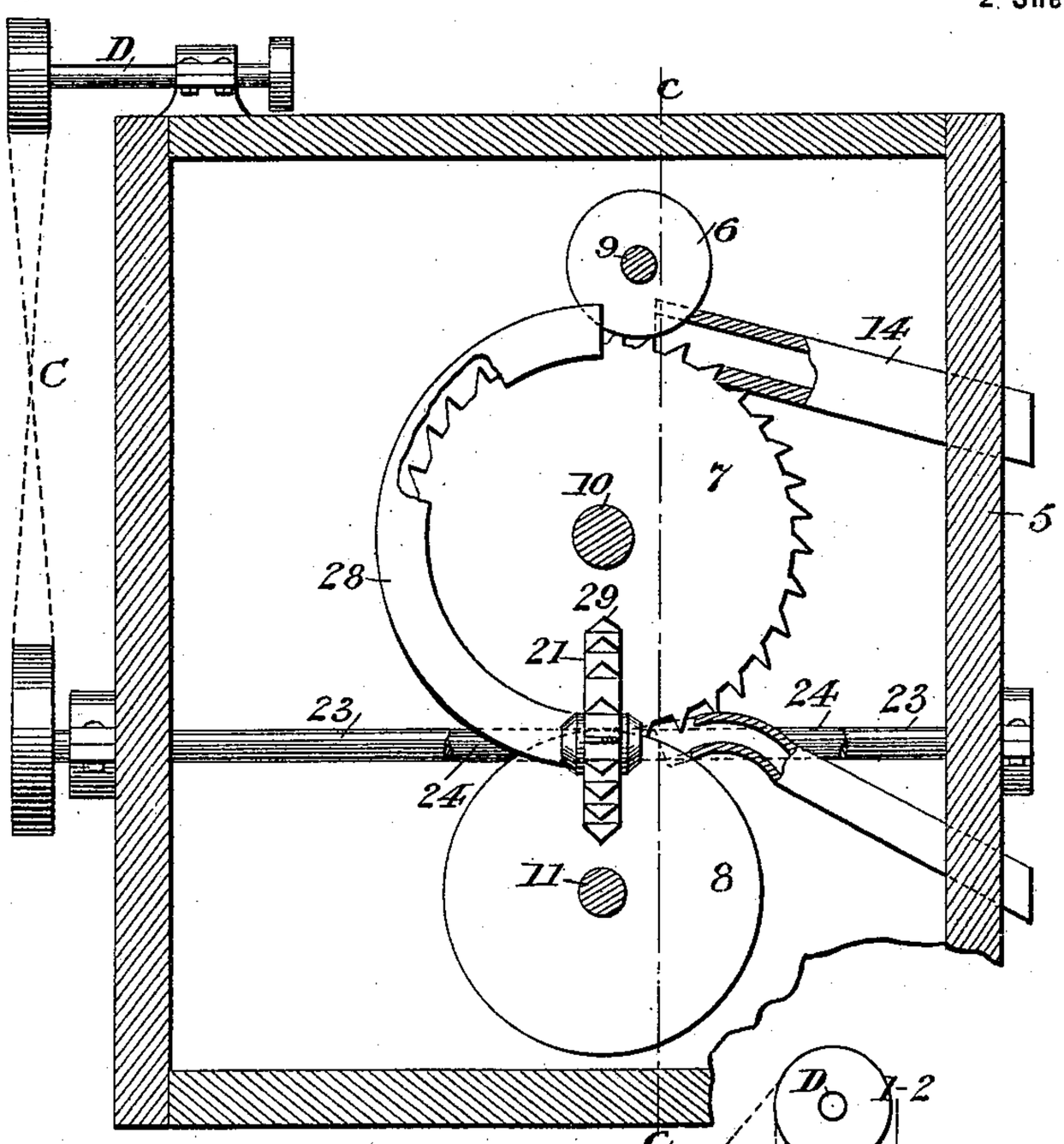


Fig. 1.

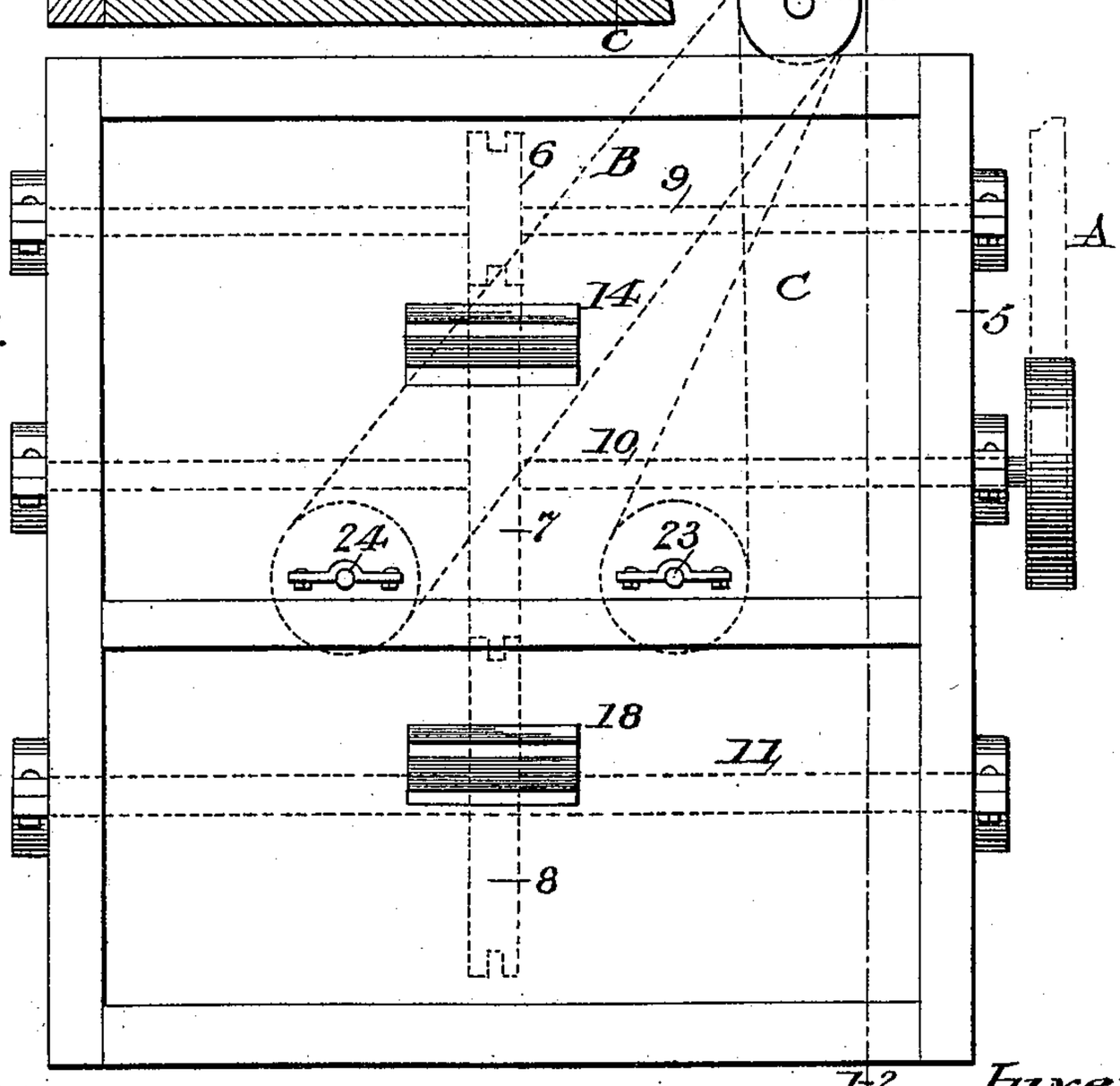


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*Fig. 3.*

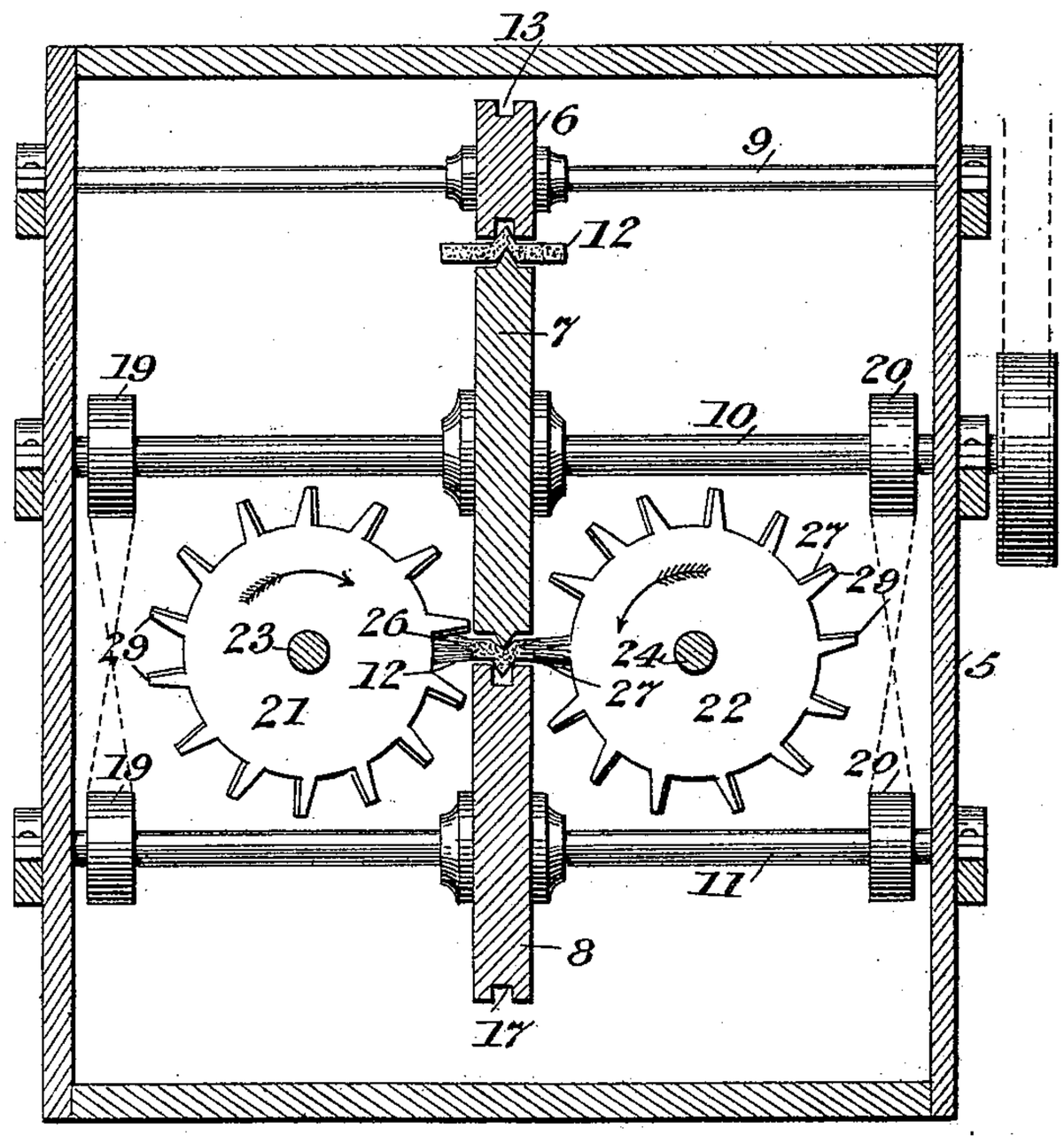



*Fig. 4.*

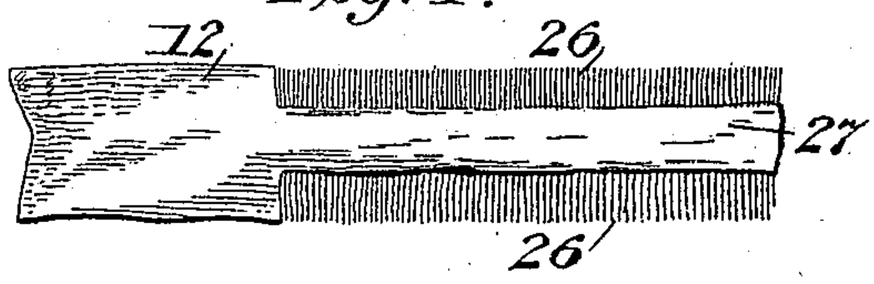
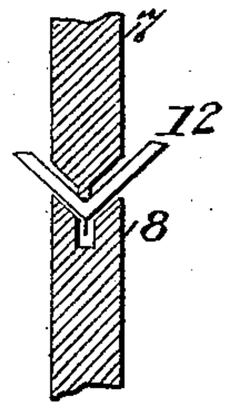



*Fig. 5.*

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# UNITED STATES PATENT OFFICE.

GEORGE P. SCHLEMMER AND HENRY J. SCHLEMMER, OF ANN ARBOR, MICHIGAN.

## RUG-MATERIAL-RAVELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 619,697, dated February 14, 1899.

Application filed September 25, 1897. Serial No. 653,004. (No model.)

*To all whom it may concern:*

Be it known that we, GEORGE P. SCHLEMMER and HENRY J. SCHLEMMER, citizens of the United States, residing at Ann Arbor, in the county of Washtenaw, State of Michigan, have invented a new and useful Rug-Material-Raveling Machine, of which the following is a specification.

This invention relates to machines for raveling rug material, and in the use of which machines the material is fed between rolls or disks and employ certain revolving means each side of the feed-rolls to ravel the woof from the warp or the reverse, as the case may be, according to which way the strips of carpet or rug material are cut, and thus leave a center of the material undisturbed with a fringe of warp or woof each side.

The object of this invention is to make certain improvements in the feed and raveling means, all as more particularly described and claimed below.

In the drawings forming a part of this specification, Figure 1 is a side elevation of the machine, looking from a point at the right of Fig. 2. Fig. 2 is a section on line *a a* in Fig. 1, looking from a point at the right. Fig. 3 is a section near line *c c* in Fig. 2, looking from a point at the right. Fig. 4 is a plan of a strip of the material after having been treated; and Fig. 5 is a section of the rolls in Fig. 3, shown broken and illustrating a change in the form of the feeding-rolls.

Referring to the parts of the drawings pointed out by numerals, 5 is the case of the machine. In this case are located three rolls, one above another, as at 6 7 8, Fig. 2. These rolls, as here shown, are mounted on shafts 9, 10, and 11, having bearings on the side of the case. The central roll is provided with peripheral teeth, as in Fig. 2, to facilitate the movement of the rug material 12 and to make the feed positive. The roll 6, above the roll 7, is an idler and is provided with a peripheral channel 13, Fig. 3, and the strip of rug material is forced and carried in said channel by the teeth of the central roll 7 engaging it as it comes from the feeding-way 14. Below the roll 7 is the roll 8, channeled at 17 like the roll 6, and the material is thus passed out through the delivery-way 18 in the manner it is fed in. The lower roll 8 may be an idler, and preferably so, or it may be fixed on shaft 11 and driven by crossed belts on pulleys 19 and 20, Fig. 3.

If ever found necessary to employ crossing-belts, as shown in Fig. 3, dotted in from pulleys 19 and 20, they may be used; but we have found that the idler 8, as well as the idler 6, will run by the movement and friction of the material fed through the machine. The central roll 7 is driven by belt A, (dotted in Figs. 1 and 3,) running from some suitable power source to the pulley on shaft 10. No power source for this purpose is here shown, but will be readily understood by machinists where it should be located according to the position of the power-engine used.

Each side of the contiguous peripheries of the rolls 7 and 8 are disks 21 and 22, mounted on shafts 23 and 24, said disks being provided with cutting and raveling blades 29 around their periphery, as in Fig. 3. These blades are sharpened at 25 and revolve, as indicated by the arrows in Fig. 3, thus cutting and raveling the warp or woof, as the case may be, and leaving the fringe 26 each side of the central strip 27, as in Fig. 4.

The shafts 23 and 24 are driven by belts B and C, running from a power-shaft D, as dotted in in Figs. 1 and 2, to the dotted pulleys on shafts 23 and 24, one of said belts being crossed to cause said shafts 23 and 24 to revolve in opposite directions, as indicated by the arrows in Fig. 3. In Fig. 2 both ends of the shaft 24 are broken away, so as not to hide other parts; but the actual position of both of the shafts 23 and 24 is shown in Fig. 1. The shaft D is run by a separate belt from some suitable power source.

It will be noticed that the raveling is done at the delivery end of the strip, where it can be held firmer.

Of course the particular means of driving the parts of the machine may be modified, if desired.

Surrounding and housing of half of the periphery of the roll 7 is a bowed guide 28, Fig. 2, and as the material is fed between the rolls 6 and 7 it is carried around an internal channel of this guide to the entrance of the delivery-way at the point where the raveling

is done, and thus make a firm positive feed and movement and delivery of the material. These channeled rolls and guide, together with the toothed roll, holds and carries the material with turned-up edges, holding it thus firm for the blades to act against and preventing lateral displacement and tearing apart. This idea, which is preferred, is shown in Fig. 5; but the material may be fed through flat, as in the other figures.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

A rug-material-raveling machine, comprising the two rolls each having a peripheral channel, a roll between them having peripheral teeth, the side disks provided with peripheral blades, and means for operating said rolls and disks, substantially as set forth.

In testimony of the foregoing we have hereunto set our hands in the presence of two witnesses.

GEORGE P. SCHLEMMER.
HENRY J. SCHLEMMER.

Witnesses:
F. PISTORIUS,
ELSA PISTORIUS.