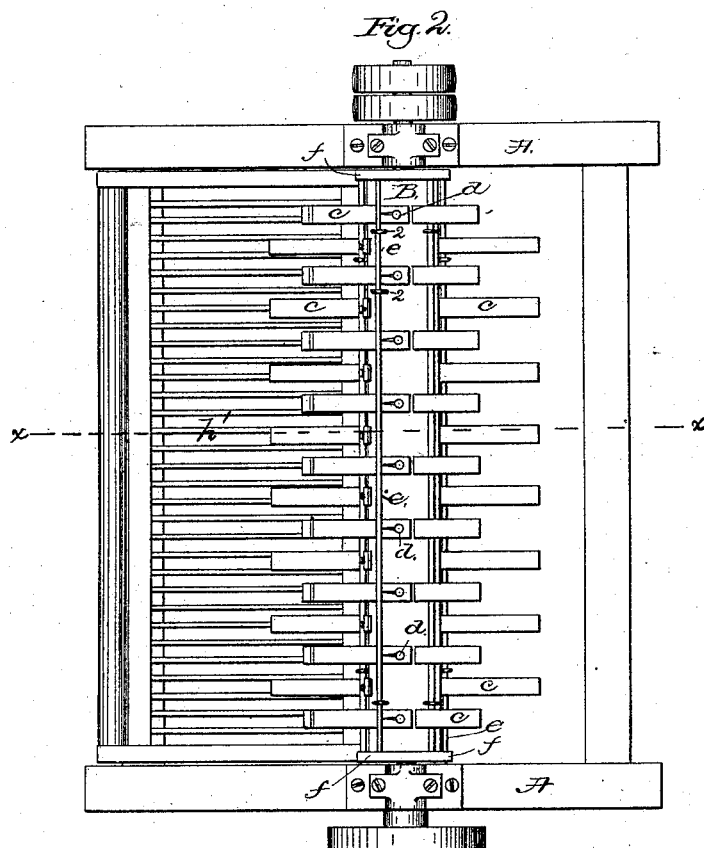
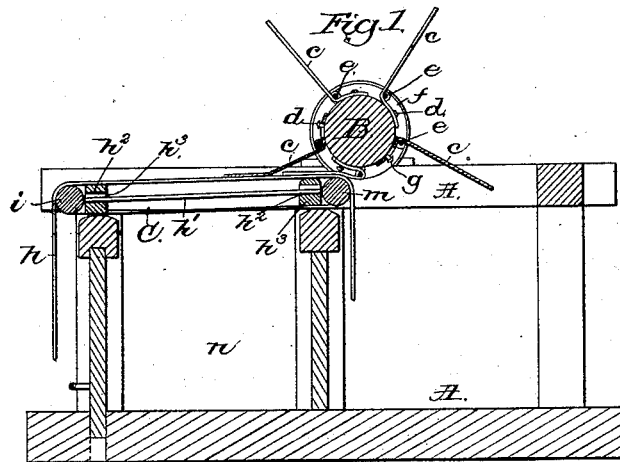


(No Model.)

T. S. CHURCH.
CARPET BEATING MACHINE.

No. 302,237.

Patented July 22, 1884.



Witnesses,
Fred A. Powell,
John F. C. Printkirk

Inventor:
Titus S. Church,
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UNITED STATES PATENT OFFICE.

TITUS S. CHURCH, OF BOSTON, MASSACHUSETTS.

CARPET-BEATING MACHINE.

SPECIFICATION forming part of Letters Patent No. 302,237, dated July 22, 1884.

Application filed February 16, 1883. (No model.)

To all whom it may concern:

Be it known that I, TITUS S. CHURCH, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Carpet-Beating Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention is an improvement on that described in United States Patent No. 262,004, to which reference may be had, and has more especial reference to a novel manner of attaching the beaters to the revolving cylinder, and to improvements in the construction of the carpet-supporting bed or grid, the invention being hereinafter described, and subsequently particularly pointed out in the claims.

Figure 1 is a section of my improved carpet-beating machine on the dotted line *x x*, Fig. 2; and Fig. 2 is a plan or top view thereof.

The frame-work *A* has suitable bearings to support the journals of the revolving cylinder *B*, driven by belt in any usual manner. This cylinder, near each end, has metal heads or collars *f*, which receive and support the ends of strong metal rods, bars, or cross-pieces *e*, placed near the surface of the said cylinder, and preferably straddled by staples 2 between adjacent beaters *c*.

The beaters *c* will preferably be composed of india-rubber belting about two and one-half inches in width, or of a strong broad strap of leather, or leather belting, or rawhide. The inner ends of the beaters, provided with holes or slits, are passed under the rods or cross-pieces and placed over the headed studs, screws, or hooks *d*, attached to the cylinder, such method of connection enabling the beaters to be readily detached from the cylinder, if desired, or when some of the beaters are not needed, as when beating a narrow carpet. The rods *e*, extended across but not connected with the beaters, receive the strain of the blow exerted by the beaters on the carpet *h*, relieve the studs or hooks *d* of such strain, and also act to keep the inner ends of the beaters from slipping off from the said studs or hooks. The slots in the beaters and the studs or hooks *d* permit the ready attachment or removal of a beater. The bearing-rods, acting on the beaters between their outer ends and their point

of attachment with the cylinder, also act to prevent the free ends of the beaters from falling back and winding about the cylinder as the latter is rotated at high speed. So the employment of the said bearing-rods, bars, or cross-pieces enables the machine to be practically run at a very much greater speed than were the said rods omitted and the ends of the beaters were attached to the cylinder by nails or screws, and not acted upon between their ends.

The carpet, *h*, to be whipped is moved over the pivoted bed or grid *C*, composed of cross-pieces *h'*, suitable connecting end pieces, and rollers *i m*, substantially as in the patent referred to. The rods *h'* of the bed are inserted loosely in round holes *h''*, made in the cross-pieces *h'*, the said holes in practice being about seven-eighths of an inch in diameter, and the rods about half that size, so that as the beaters strike the carpet the rods are moved from side to side and up and down, deriving their movement from percussion, and in their jumping movement they act to lift the carpet, and also compel the dust and dirt to fall from them. Placing the rods *h'* loosely, as described, in holes in the cross-bars of the bed enables them to yield to the blows of the beaters, and so obviates tearing the carpet.

I claim—

1. In a carpet-beating machine, the bed or grid provided with rods *h'*, set in holes of much larger diameter than said rods, to permit a free movement of said rods under the action of the beaters, substantially as described.

2. The bed and its loosely-held rods *h'*, combined with the revolving cylinder and its attached flexible beaters, substantially as described.

3. In a carpet-beating machine, the revolving cylinder and its bearing-rods, bars, or cross-pieces extended across the beaters, combined with the flexible beaters, slotted at their ends and passed under the said rods or bars, and removably connected to headed studs or hooks *d*, attached to the cylinder, substantially as described.

4. The rotating cylinder, its bearing-rods, flexible beaters extended under the said rods and connected with studs or hooks on the said cylinder, combined with the bed provided with

the loosely-held rods h' , all substantially as described.

5 5. In a carpet-beating machine, the revolving cylinder and flexible beaters removably attached thereto, combined with the bearing-rods, bars, or cross-pieces extended longitudinally of the cylinder above the beaters, and attached to the cylinder, to insure the proper
10 action of the beaters notwithstanding a high rate of speed, substantially as described.

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

TITUS S. CHURCH.

Witnesses:

G. W. GREGORY,

BERNICE J. NOYES.