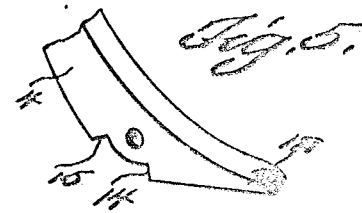
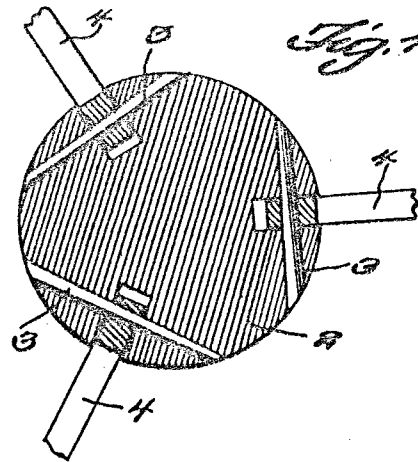
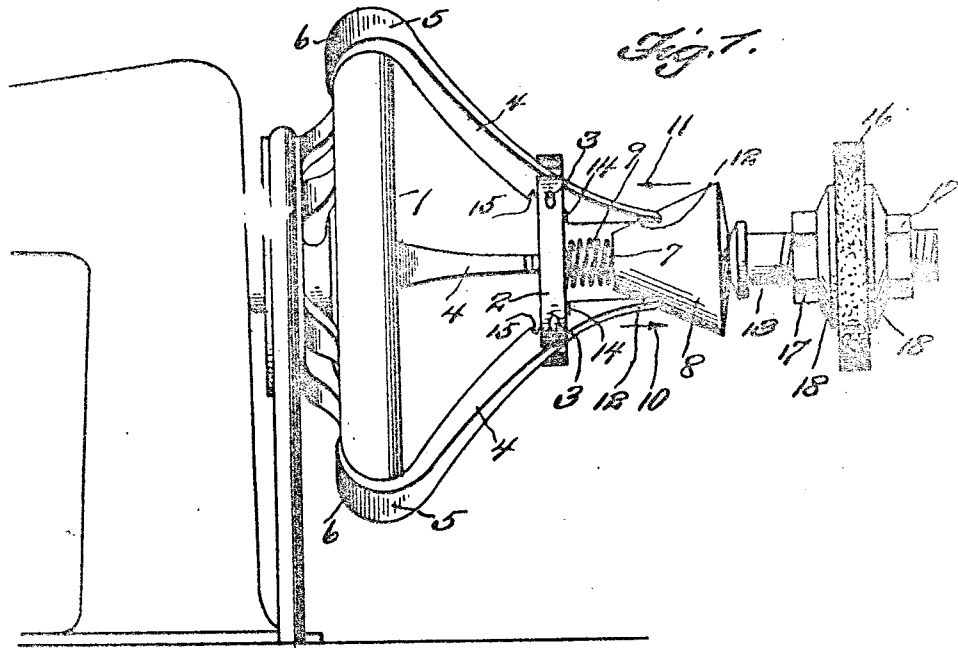


W. A. HARTNESS.
ATTACHMENT FOR SEWING MACHINES.
APPLICATION FILED MAR. 14, 1912.

1,045,839.

Patented Dec. 3, 1912.
2 SHEETS—SHEET 1.



Witnesses

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C. C. Clements,

Inventor

W. A. Hartness,
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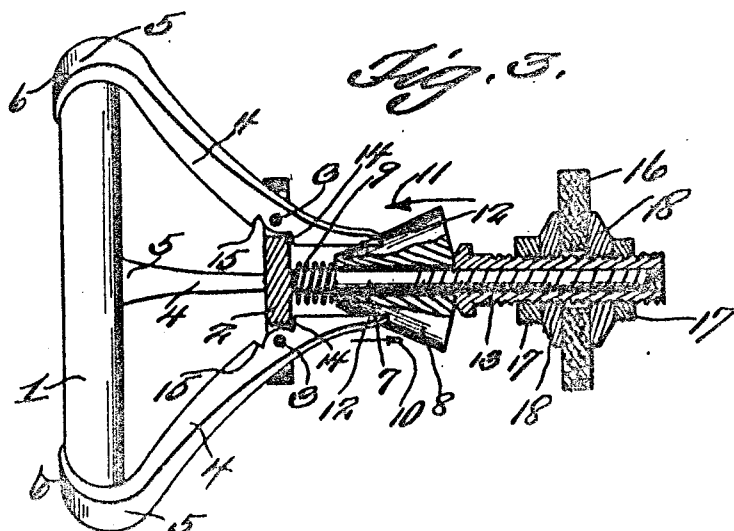
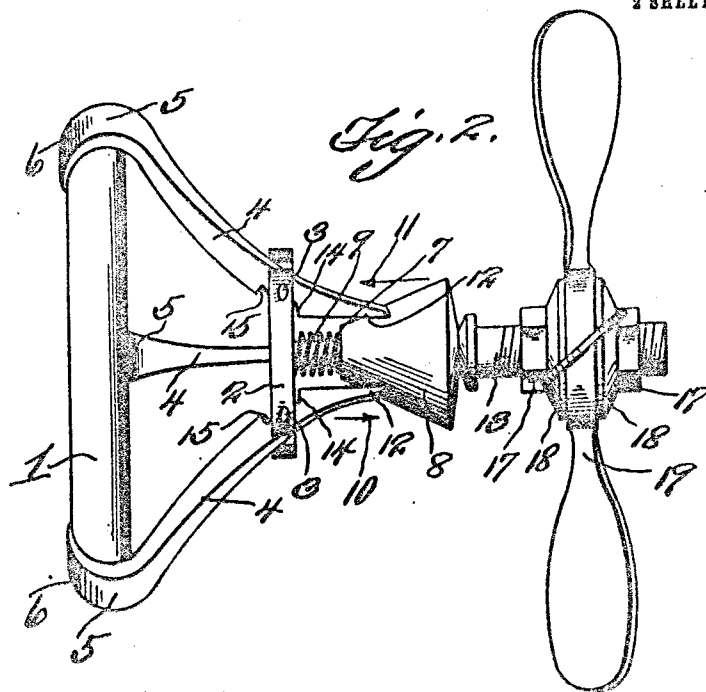
Attorneys

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2 SHEETS-SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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TO C. S. SMART, OF COOLEEMEE, NORTH CAROLINA.

ATTACHMENT FOR SEWING-MACHINES.

1,045,839.

Specification of Letters Patent.

Patented Dec. 3, 1912.

Application filed March 14, 1912. Serial No. 683,774.

To all whom it may concern:

Be it known that I, WILLIAM A. HARTNESS, a citizen of the United States, residing at Cooleemee, in the county of Davie and State of North Carolina, have invented a new and useful Attachment for Sewing-Machines; and I do hereby 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.

This invention relates to a new and useful attachment to sewing machines.

The primary object of the invention is to provide an attachment in which novel features are involved.

The principal feature of the invention is the provision of a plurality of jaws operable by a cone member to clamp the fly wheel of the sewing machine, for clamping a grinding device, or any buffer, brush or polishing device and the like to the fly wheel to rotate therewith. It is to be understood that a fan or the like may be secured to the fly wheel by the clamping jaws to rotate therewith if desired.

The invention comprises further features and combination of parts, as hereinafter set forth, shown in the drawings and claimed.

In the drawings:—Figure 1 is a view in elevation showing a sewing machine fly wheel with the improved attachment applied thereto and carrying a polishing or grinding wheel. Fig. 2 is a view in elevation showing a fan substituted for the grinding or polishing wheel. Fig. 3 is a sectional view through the attachment. Fig. 4 is a sectional view on line 4—4 of Fig. 3. Fig. 5 is a detail view.

Referring to the drawings 1 designates the fly wheel of the sewing machine, while 2 denotes a disk, to which are pivoted, by means of the pins 3, the jaws 4. The free end 5 of each jaw terminates in a broad curved portion 6, which partially embraces about the circumference of the fly wheel, to support the disk relatively thereto. Extending from one face of the disk is a screw threaded shank or rod 7, on which a slidable cone member 8 is arranged. Between the cone member and the disk and surrounding the shank or rod is a coil spring 9, which tends to force the cone outwardly in the direction of the arrow 10. However when the cone is forced in the direction of the

arrow 11, the inclined or conical surface of the cone engages the heels 12 of the jaws simultaneously which force the curved extremities of the jaws against the circumference of the fly wheel, so as to clamp the disk rigidly in position. In order to move the conical member in the direction of the arrow 11, a sleeve 13 is threaded to the shank or rod. This sleeve when rotated to move into the direction of the cone member, forces the cone member against the action of the spring and in contact with the heels, but when the sleeve is rotated to move in the opposite direction, the coil spring will force the cone member from the heels.

The jaws are provided with shoulders 14, to limit the free curved extremities of the jaws in their outward movements. However, the shoulders may be disposed on any angle. The jaws are provided with additional shoulders 15, to limit the free curved extremities of the jaws in their inward movements, when the attachment is detached from the fly wheel.

In Fig. 1 a grinding or polishing wheel 16 is secured on the sleeve, by means of the nuts 17 (which are threaded to the sleeve) and the washers 18.

In Fig. 2 a fan 19 is clamped to the sleeve, by means of the nuts and washers, instead of the grinding or polishing wheel.

In the drawings there is disclosed one form only of the attachment, but in practical fields this form may require alterations, to which the patentee is entitled, provided the alterations are comprehended within the scope of what is claimed.

The invention having been set forth, what is claimed as new and useful is:—

1. In combination with a fly wheel, a disk member having a shank and provided with a series of jaws to engage the fly wheel, a cone member slidably operable on the shank to engage the heels of the jaws to force the free ends of the jaws firmly in contact with the fly wheel, a coil spring surrounding the shank between the cone and the disk, to force the cone outwardly in order to permit the jaws to be disengaged from the fly wheel, and a member threaded on the shank to force the cone in engagement with the heels of the jaws against the action of the spring.

2. In combination with a fly wheel, a disk member having a series of radial slots and provided with an integral shank, a series of

jaws pivoted in the radial slots in order to engage the fly wheel, a cone member slidably operable on the shank to engage the heels of the jaws to force the free ends of the jaws firmly in contact with the fly wheel, a coil spring surrounding the shank and arranged between the cone and the disk to force the cone outwardly from engagement with the heels, and a member threaded on the shank to force the cone in engagement with the heel against the action of the spring.

3. In combination with a fly wheel, a disk member having a plurality of radial slots and provided with a shank, a plurality of jaws, one pivoted in each of the radial slots to engage the fly wheel, the jaws having shoulders to engage the disk in order to limit the jaws in their inward and outward movements, a cone member slidably operable on the shank to engage the heels of the jaws to force the free ends of the jaws firmly in contact with the fly wheel, a coil spring on the shank and acting between the disk and the cone member to disengage the cone member from the heels, and a sleeve member

threaded on the shank to operate the cone to engage the heels, the sleeve member having a revoluble member.

4. In combination with a fly wheel, a disk member having a plurality of radial slots and provided with a shank, a plurality of jaws, one pivoted in each of the radial slots to engage the fly wheel, the jaws having shoulders to engage the disk in order to limit the jaws in their inward and outward movements, a cone member slidably operable on the shank to engage the heels of the jaws to force the free ends of the jaws firmly in contact with the fly wheel, a coil spring on the shank and acting between the disk and the cone member to disengage the cone member from the heels, and a member having a fan thereon and threaded on the shank to operate the cone member to engage the heels.

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

WILLIAM A. HARTNESS.

Witnesses:

H. E. BARNES,

JOHN M. BLOUNT.