

J. H. RACE.
 Devices for Preventing Back-Motion in Machinery.
 No. 154,189. Patented Aug. 18, 1874.

Fig. 1.

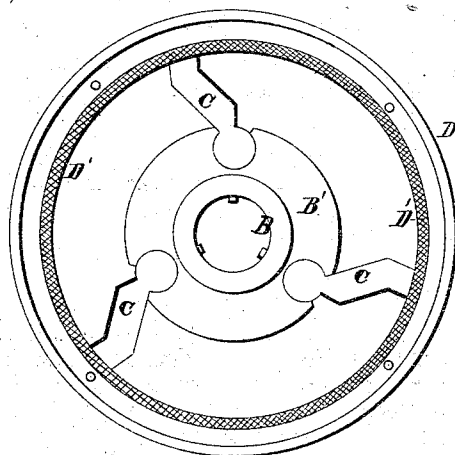
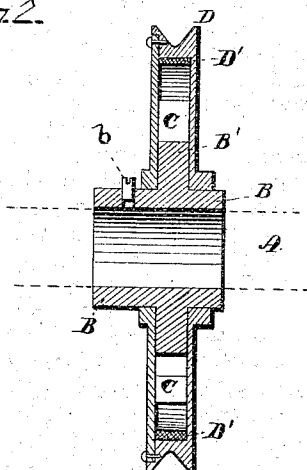


Fig. 2.



WITNESSES
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UNITED STATES PATENT OFFICE.

JAMES H. RACE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN DEVICES FOR PREVENTING BACK MOTION IN MACHINERY.

Specification forming part of Letters Patent No. **154,189**, dated August 18, 1874; application filed June 10, 1874.

CASE A.

To all whom it may concern:

Be it known that I, JAMES H. RACE, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvement in Device for Preventing Back Motion; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to mechanism for preventing the back motion of a sewing-machine drive-shaft during the backward motion of the wheel, and is designed as an improvement upon the device patented to A. H. and J. H. Race, September 30, 1873—apparatus for preventing back motion.

My invention consists in certain combinations and arrangements of devices and appliances, as hereinafter set forth and claimed.

In the drawings, Figure 1 is a view in plan, showing the application of my invention to the loose wheel of a sewing-machine. Fig. 2 is a sectional view of same.

A is the shaft; B, a collar or sleeve, rigidly secured to the same by set-screw *b*, constructed with the projecting rim or flange B', in which loose gravity-pawls C are trunnioned. D is the drive or band wheel of the machine, which is hollow, and within which the flange B' of the collar B is housed, the wheel D revolving loosely on the collar B. On the interior of this wheel D is placed the flexible material D', of rubber or other suitable material,

against which the pawls C impinge. The flexible material is designed to insure a more certain grip, and it serves at the same time to prevent the hard grating sound that occurs in using the wheel without the flexible material. This material D' is so situated within the wheel D, and the pawls so constructed, that the pawls will impinge squarely against the flexible surface, as shown in Fig. 1, during the forward movement, and drop away therefrom in the backward motion of same.

I have described the pawls C as being trunnioned in the flange B' of the collar B, but instead of thus attaching them they may be trunnioned directly to the shaft.

I am aware that flexible material has before been employed within a hollow wheel, and adapted to be operated against by spring-pawls—this, therefore, I do not, broadly, claim; but

What I do claim as new, and desire to secure by Letters Patent, is—

In combination with the flanged collar B B' and pawls C, constructed with flat square-bearing ends, and trunnioned loosely in the flange B' of the collar B, the wheel D, provided in its interior with the flexible bearing-surface D', against which the pawls impinge, substantially as and for the purposes described.

In testimony that I claim the foregoing I have hereunto set my hand.

JAMES H. RACE.

Witnesses:

WELLS W. LEGGETT,
R. M. BARR.