(No Model.)

R. ACKROYD.

APPARATUS FOR CLEANING WOOL COMBS.

No. 413,998. Patented Oct. 29, 1889.

fig. 1.

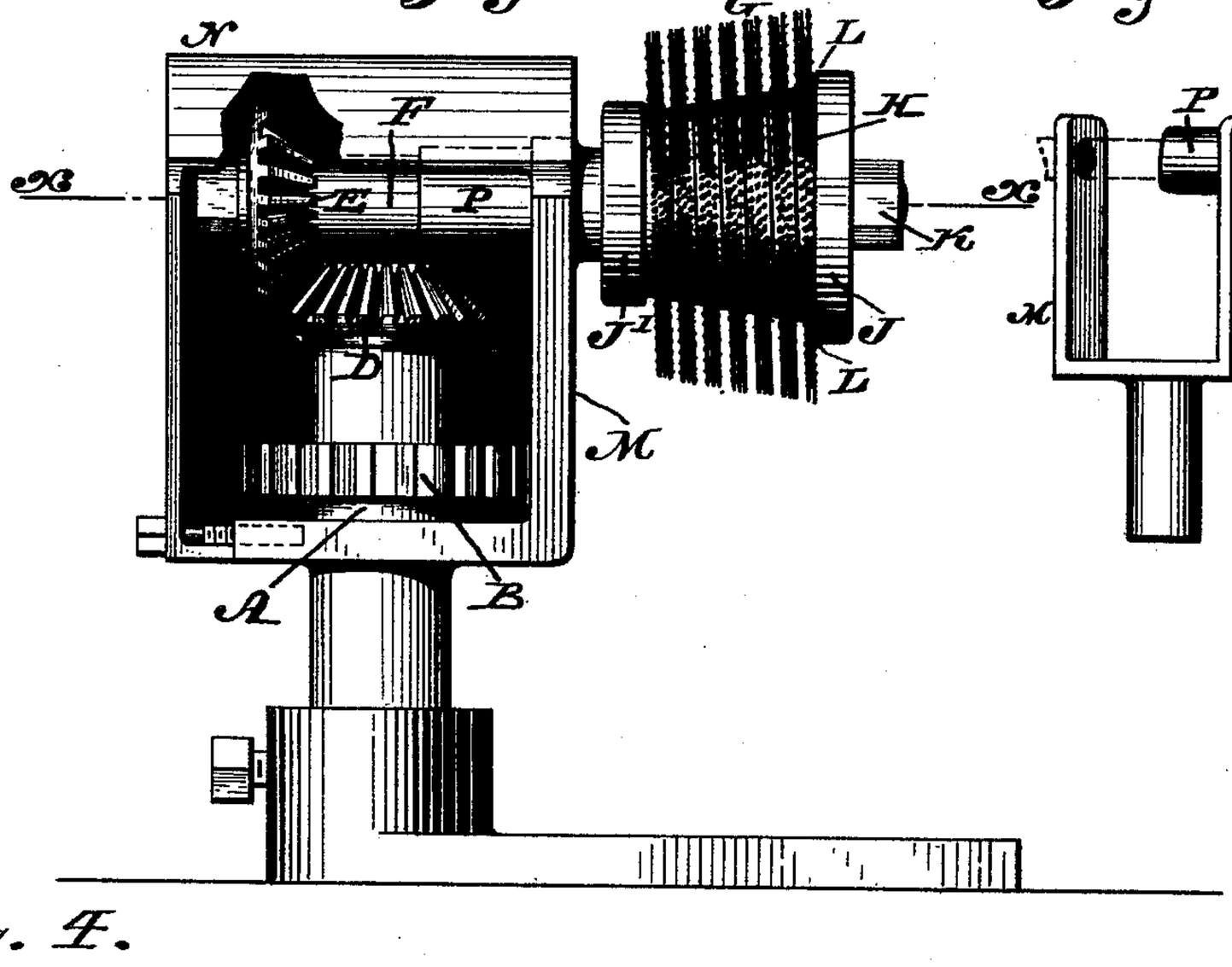


fig. 6.

fig. 4.

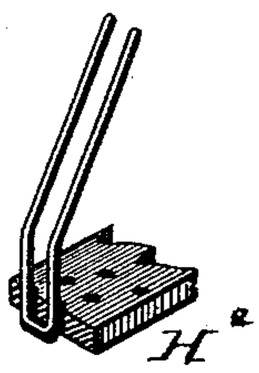


fig. 5.

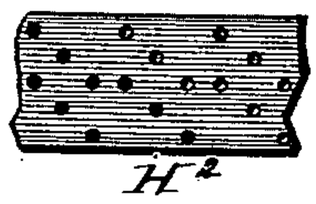


fig. 2.

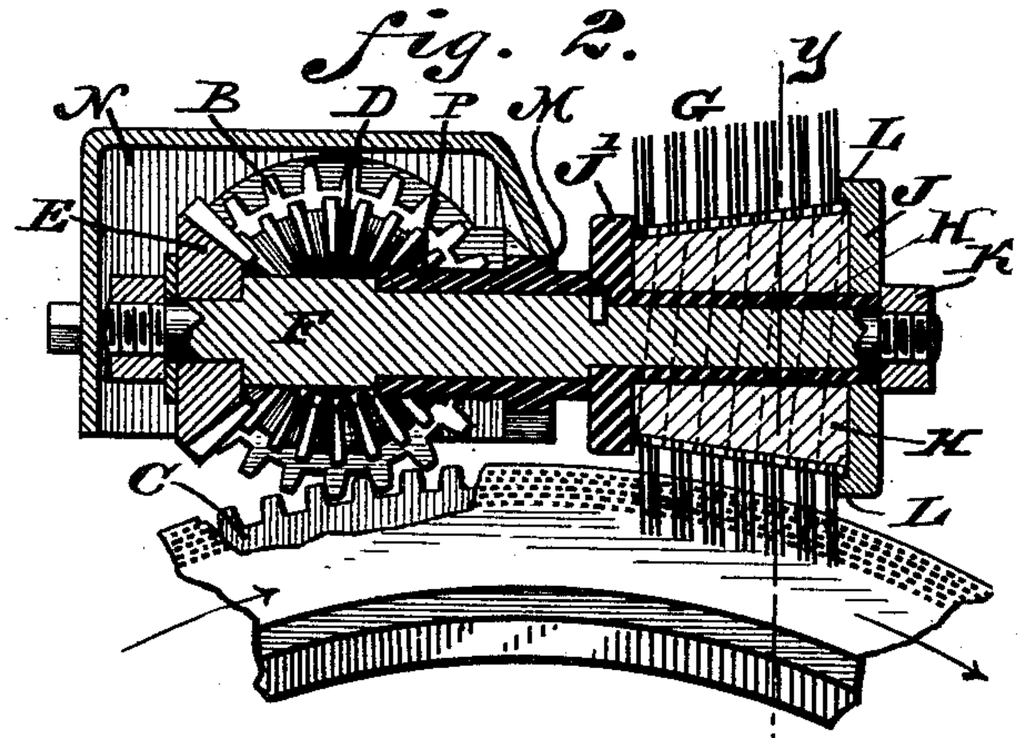
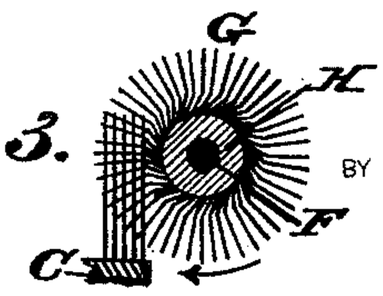


fig. 3.



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REUBEN ACKROYD, OF CRUM LYNNE, PENNSYLVANIA.

APPARATUS FOR CLEANING WOOL-COMBS.

SPECIFICATION forming part of Letters Patent No. 413,998, dated October 29, 1889.

Application filed April 29, 1889. Serial No. 308,960. (No model.)

To all whom it may concern:

Be it known that I, REUBEN ACKROYD, of Crum Lynne, in the county of Delaware, State of Pennsylvania, have invented a new and useful Improvement in Apparatus for Cleaning Wool-Combs, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of improvements in a brush for cleaning the teeth of wool and other combs, and embodies means for causing a wiping action of the wires on such teeth, and, furthermore, of means for laterally sustaining the wires.

Figure 1 is a side elevation of apparatus for cleaning combs embodying my invention, the housing being partly broken away to show the gearing in the interior thereof. Fig. 2 is a horizontal section thereof on line *x x*, Fig. 1, and shows a fragment of the comb circle and its rack. Fig. 3 is a section on line *y y*, Fig. 2, on a reduced scale. Fig. 4 is a perspective view of a portion of the brush employed for cleaning the combs. Fig. 5 is a view of the back of said brush. Fig. 6 represents a perspective view of a modification of the bearing for the shaft of the brush.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a rotatable shaft, which is mounted and sustained in any suitable manner.

B designates a gear-wheel, which meshes with the circular rack C of the combing-machine and receives motion therefrom.

Secured to the shaft is a bevel-wheel D, with which meshes a bevel-wheel E, the latter being secured to a shaft F, which is properly mounted and sustained, and carries on one end the circular brush G, which is so disposed that its wires enter the teeth of the comb circle, as will be seen in Figs. 2 and 3. The wires of the brush are secured thereto by means of a perforated band H^2, encircling the head H, which latter is supported on a sleeve H′ on the shaft F and retained between collars J J′, the latter collar J′ being formed on one end of the sleeve, and said collars being on opposite ends of the head, the end of the shaft being threaded for engagement of a nut K, which is adapted to tighten against the collar J and hold the same and the brush in position. The collar J is of greater diameter than the head of the brush, and its inner face has a flange at the periphery thereof, forming a rim L, which bears against the wires of the brush, thus sustaining the same in lateral direction, preventing material spreading of the wires when the brush is in use. The brush G is of conical form, and the wires thereof, which are in planes at substantially right angles to the axis of the brush, are so bent that at their outer ends they extend in radial lines with said axis, the inner end portions being nearly tangential to the head H. By this provision the said wires readily pass between the teeth of the rack, bearing against the same, so that the dirt is reliably removed therefrom.

In practice the backing H^3 of the brush consists of a strip of leather or other flexible material, which is wound spirally upon the core or head of the brush, as will be seen in Fig. 1. The shaft F has its bearings in the vertical arm M, to which is secured the housing N of the gearing D E, the vertical limb of said arm having a boss P, which encircles said shaft, as will be seen in Fig. 1. In Fig. 6 two vertical limbs are shown, the same supporting the shaft F, and adapted to be located within the housing N.

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

1. A brush for cleaning combs, having a shaft supporting the same and an arm forming the bearing for said shaft, in combination with a shaft having a gear-wheel meshing with the circular rack of the combing-machine, said shafts being geared together, all substantially as described.

2. An apparatus for cleaning combs, consisting of a shaft suitably journaled and with a gear-wheel thereon, mechanism, substantially as described, for rotating said gear-wheel, a bevel-wheel on the end of said shaft, a counter-shaft with a bevel-wheel meshing with said first bevel-wheel, an arm in which said counter-shaft is journaled, a housing secured to said arm and inclosing said bevel-wheel, and a brush on the outer end of said counter-shaft, said parts being combined substantially as described.

3. In an apparatus for cleaning combs, a

shaft with a bevel-wheel thereon, mechanism, substantially as described, for rotating said shaft, a sleeve on the outer end of said shaft, having a collar on its inner end, a head with wires on said sleeve, a collar on said shaft outside of said head and bearing against it, and a nut on the threaded end of the shaft, said parts being combined substantially as described.

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