G. F. MILLER & W. G. BENEDICT.

Machine for Treating Palmetto Leaves, &c.

No. 201,269. Patented March 12, 1878.

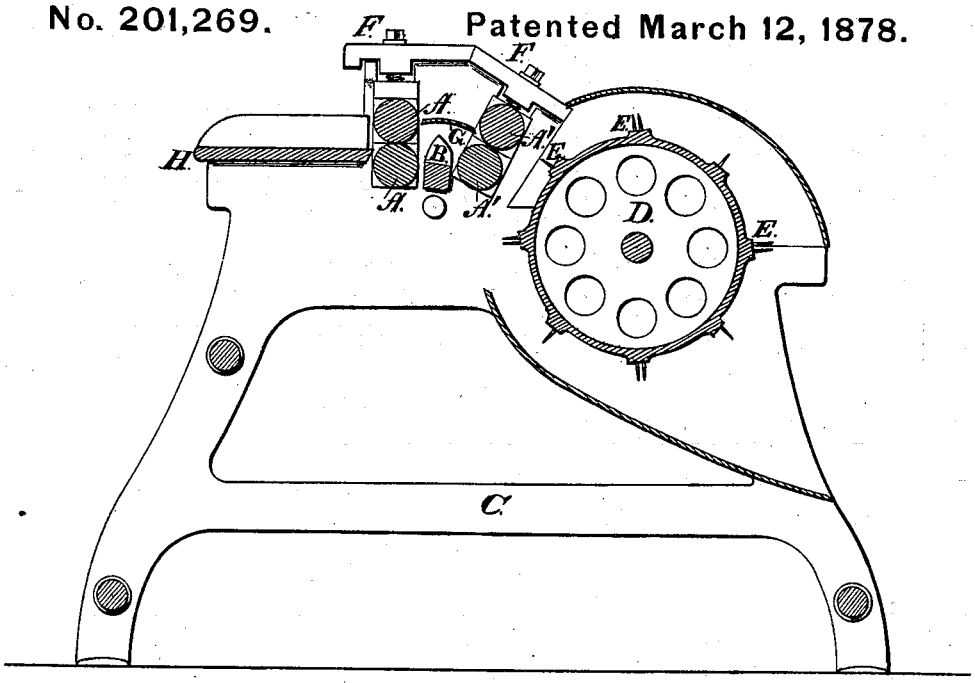

Fig. 1.

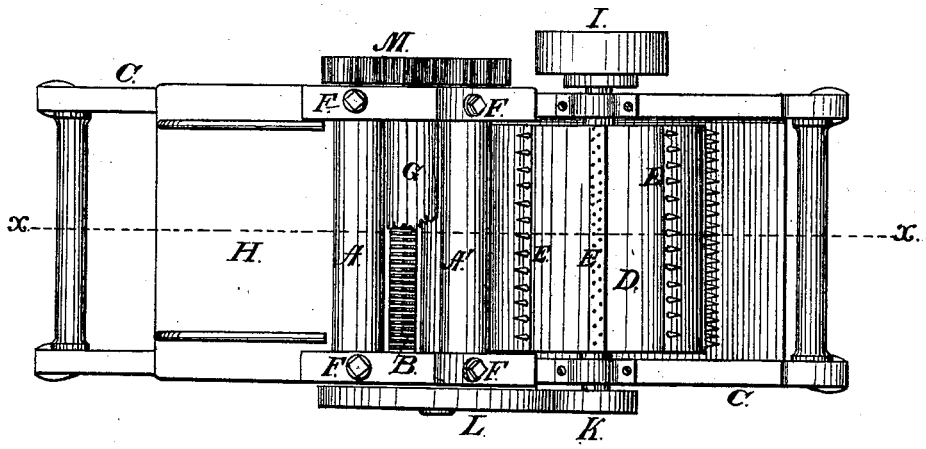

Fig. 2.

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UNITED STATES PATENT OFFICE.

GEORGE F. MILLER, OF JACKSONVILLE, AND WASHINGTON G. BENEDICT, OF ORANGE PARK, FLA.; SAID MILLER ASSIGNOR TO SAID BENEDICT.

IMPROVEMENT IN MACHINES FOR TREATING PALMETTO-LEAVES, &c.

Specification forming part of Letters Patent No. **201,269**, dated March 12, 1878; application filed December 27, 1877.

To all whom it may concern:

Be it known that we, GEORGE F. MILLER, of the city of Jacksonville, in the county of Duval and State of Florida, and WASHINGTON G. BENEDICT, of the villa of Orange Park, in the county of Clay and State of Florida, have jointly invented a new and useful Improvement in Machines for Cutting, Stripping, or Combing into Shreds all Varieties of Palmetto Leaves, Stalks, or Buds, to be used for and in the manufacture of bedding and all upholstery purposes, of which the following is a specification:

Figure 1 is a sectional view, and Fig. 2 is a top view.

The object of our invention is to make a machine which will strip palmetto leaves, stalks, and buds into fine fibers, so that it can be braided or twisted, and make an article of commerce similar to the curled hair used by upholsterers.

The particular features of novelty in our invention will be pointed out hereinafter, and specifically claimed.

A suitable frame, C, supports the operative parts of our machine, having at one end a feed-board, H, on which the leaves, &c., to be stripped are placed. The leaves, &c., are fed from this board to the feed-rollers A A, which draw them forward against a series of knives, B, which knives split the leaves, &c., into strips. These knives B are preferably placed about three-eighths of an inch apart; but a greater or less width may be given them.

The leaves, &c., are of such strength or stiffness that the feed-rollers A A will push them against the knives B, and, after the splitting, will carry the points forward to the feed-rollers A′ A′. A shield or guide, G, is placed above the knives to prevent the ends of the leaves rising up, and may be curved, as shown, to deflect them downward, where the construction of the machine requires it.

The feed-rollers A A and A′ A′ are held a suitable distance apart by set-screws F F, and may, if desired, have a spring-pressure upon the leaves, &c., passing through them.

After the ends of the split leaves, &c., have passed through the rollers A A and A′ A′ they are caught by the stripping pins or combs E on the wheel or drum D. This drum D revolves with greater velocity than the feed-rollers, and the teeth have the effect of combing or stripping the leaves, &c., into fine fibers. The shield or apron over the combing-drum holds down the leaves, &c., so they can be acted upon by the teeth.

The teeth E on the drum D do not project directly from the cylindrical surface of the drum, but are placed in rows on slats or ridges running lengthwise of the cylinder. This is to prevent the fiber from clinging to and winding upon the drum, which it will do if the teeth simply project from the surface of the drum.

The points of the palmetto-leaves, &c., are tied together, and the leaves fed point first to the first set of feed-rollers.

The speed of the feed-rollers is regulated by gearing, so that the leaves, &c., can be moved with more or less rapidity as compared with that of the combing-drum D.

The teeth of the combing-drum D may be made adjustable as to their distance from each other, so as to vary the width of the shreds of the leaf, to adapt it to the varying requirements of the manufactures in which it is used.

We claim as new—

1. The combination of the feed-rolls A A and A′ A′ and intermediate slitting-knives B, adapted to make a continuous cut, constructed substantially as described.

2. The combination of the slitting-knives B, the rollers A A, and the guide or shield G, to hold the leaves, &c., or other material, down to the knives.

3. The combination of the feed-rolls A A and A′ A′, the slitting-knives located between them, and the shield or guide G, substantially as described.

4. The combination of the slitting-knives and the combing-drum, substantially as described.

5. The combination of the feed-board, two sets of feed-rolls, with slitting-knives between them, the shield or guide over these knives, and the combing-drum, when all are constructed, arranged, and operated substantially as described.

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Witnesses:
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