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IMPROVED MACHINE FOR STRINGING TOBACCO LEAVES.

We illustrate herewith a new foot power apparatus by which tobacco leaves can be rapidly pushed upon a string, and also along a rod or wire to which the cord serves to secure them. The arrangement is such that the leaves can be strung as rapidly as two persons can present them from opposite sides in front of the needle.

The needle, A, which is shown detached in the foreground, rests in notches on inclined projections above the table, with its point projecting over a cavity, B, in the bed. It is confined against being pushed back by the shoulders formed upon it as shown. A spring, C, bears on the point, and a spring, D, on the body, of the needle between the inclined projections. The string is attached to the head and also to the rod, E, the further end of the latter being secured in a standard not exhibited in the engraving. F is a fork, pushed between which and the point of the needle the leaves are placed. By means of the treadle and crank mechanism beneath the table, the pusher is caused to move forward, thus forcing the leaves upon the needle, which is lifted by the leaves as they pass out of the notches in which it rests. The springs then force the needle back into the notches; and the pusher, continuing its motion, carries the leaves upon the string, then descends, passes back under the table, and resumes its original position, ready to push forward a new supply of leaves. By presenting the leaves to the pusher, alternately from opposite sides, they are made to hang on each side of the rod until the string is full. The end of the cord is then fastened to the rod, the latter with its load is removed, and a new rod and string are adjusted.

The device is simple and labor-saving, and will doubtless greatly facilitate work where extensive crops of tobacco are to be prepared for drying, etc.

Patented through the Scientific American Patent Agency, August 29, 1876. For further information relative to sale of patent or regarding royalties, address the inventor, Mr. Louis Strasser, 317 South Washington avenue, Columbus, O.

IMPROVED MILLING ATTACHMENT FOR LATHES.

We illustrate herewith an ingenious invention, the object of which is to increase the capabilities of the lathe in order

that that tool may be adapted to the work of a milling machine. There are many shops where the last named implement would be of much assistance, but yet is not so frequently required as to warrant its purchase. In such cases the present device offers both an economical and a convenient mode of supplying the need; and as it includes an adjustable bed plate, it besides furnishes an effective adjunct to the lathe itself.

The apparatus consists of a swinging frame, A, having

held by a clamp screw in the slot of the standard. The tangent screw admits of nice adjustment of the frame, and defines the position of the latter and that of the milling cutter at the exact height required.

The frame carries the arbor, D, to which the cutter is applied, the arbor being retained at one end in a bearing in the frame, and at the other by a pointed screw center rigidly held in position by a jam nut. It is revolved by a gear wheel at its end, engaging with a gear wheel of the lathe mandrel.

Work is fed to the cutter by means of the solid bed plate and feed screw shown. The plate moves on a guide plate clamped to the lathe carriage, and is adjustable to any angle up to 45°.

The automatic feed of the lathe and the range afforded in the direction of the lathe bed facilitate the milling-off of plane surfaces, and enable the lathe to do the work of a small planer. Instead of using the bed plate for small work, a suitable vise or work holder may be clamped to the tool post. Several devices for this purpose are known to mechanics; but when this attachment is used, they may be made more simple and substantial, as the height of the cutter is varied and not that of the work.

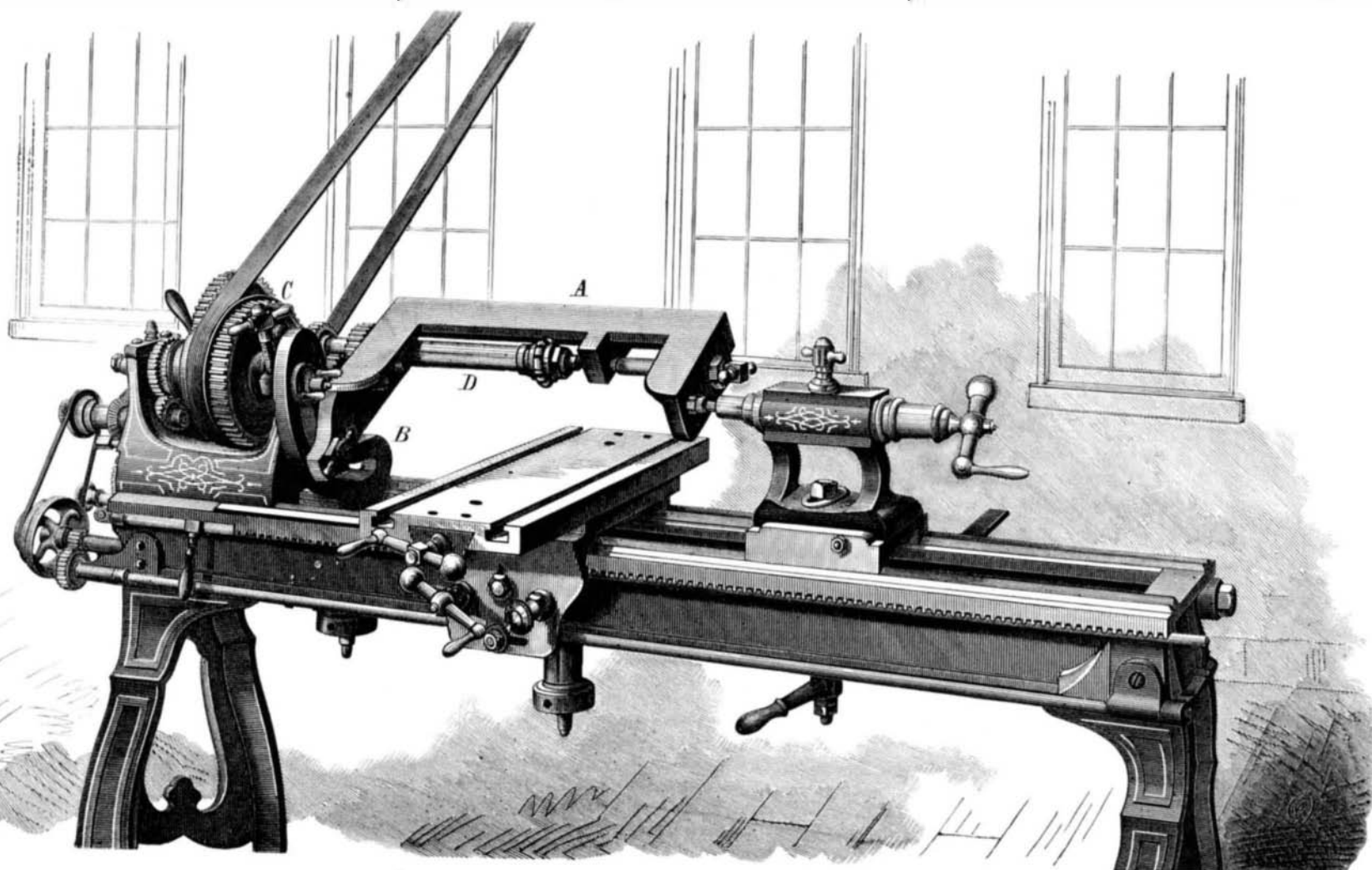
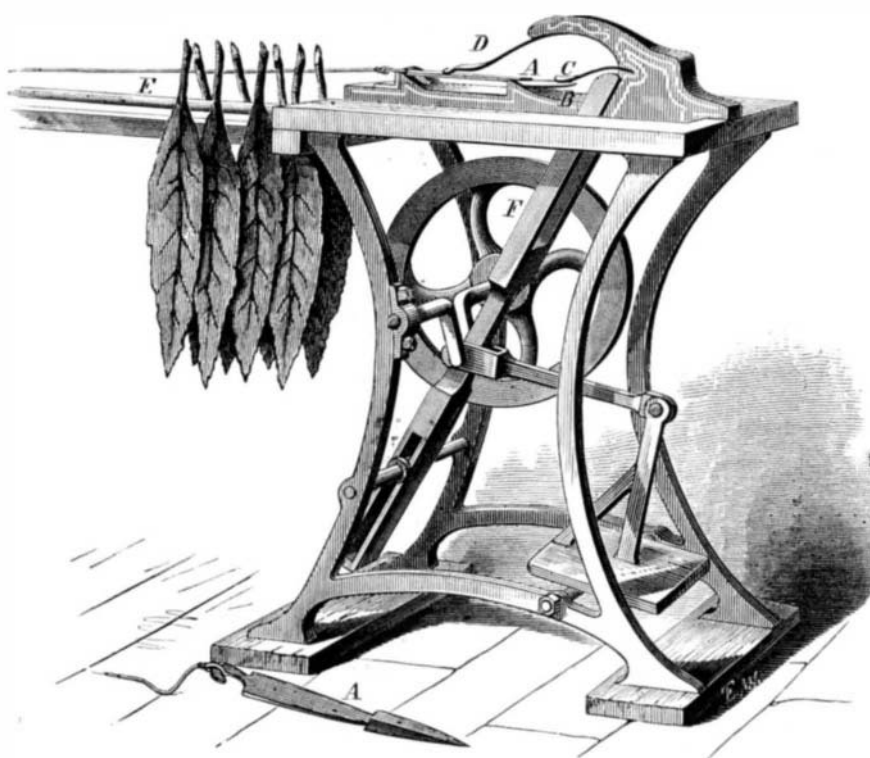
By withdrawing the back center of the lathe, and relaxing the clamping nut beneath the bed, the whole milling arrangement may be removed at once. The device is now operation at the Centennial Exposition, in Machinery Hall, section B 4, column 28.

Patented through the Scientific American Patent Agency, August 29, 1876. For further particulars relative to sale of rights or of patent, address the inventor, Mr. Wm. Main, Jr., Columbia, S. C.

STRASSER'S MACHINE FOR STRINGING TOBACCO LEAVES.

rectangular sides, which is applied to the lathe centers and adjusted by means of a slotted arc-shaped standard, B. The latter is secured to the lathe shears by a base part fitted to the lathe and a clamping arrangement. It is removed from the machine with the milling attachment when not required for use. The extension of one arm of the swinging frame is clamped to the stand by a set screw, and is secured at the desired angle by the tangent screw, C, that turns in a socket

INVENTIVE HONORS.—A medal of the value of \$100 has been founded by Mr. Benjamin Shaw, of which the Society of Arts, London, has accepted the trusteeship. It is to be awarded every fifth year "for any discovery, invention, or newly devised method for obviating or materially diminishing any risk to life, limb, or health, incidental to any industrial occupation, and not previously capable of being so obviated or diminished by any known and available means." The first award will be in May, 1877.



MAIN'S MILLING ATTACHMENT FOR LATHES.