

(No Model.)

J. ASHTON & J. MOORHOUSE.

MEANS FOR DRIVING SLUBBING AND ROVING MACHINES.

No. 514,693,

Patented Feb. 13, 1894.

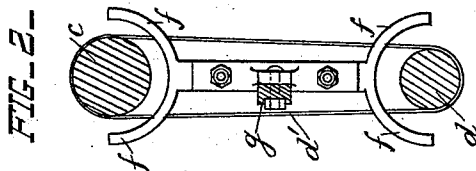
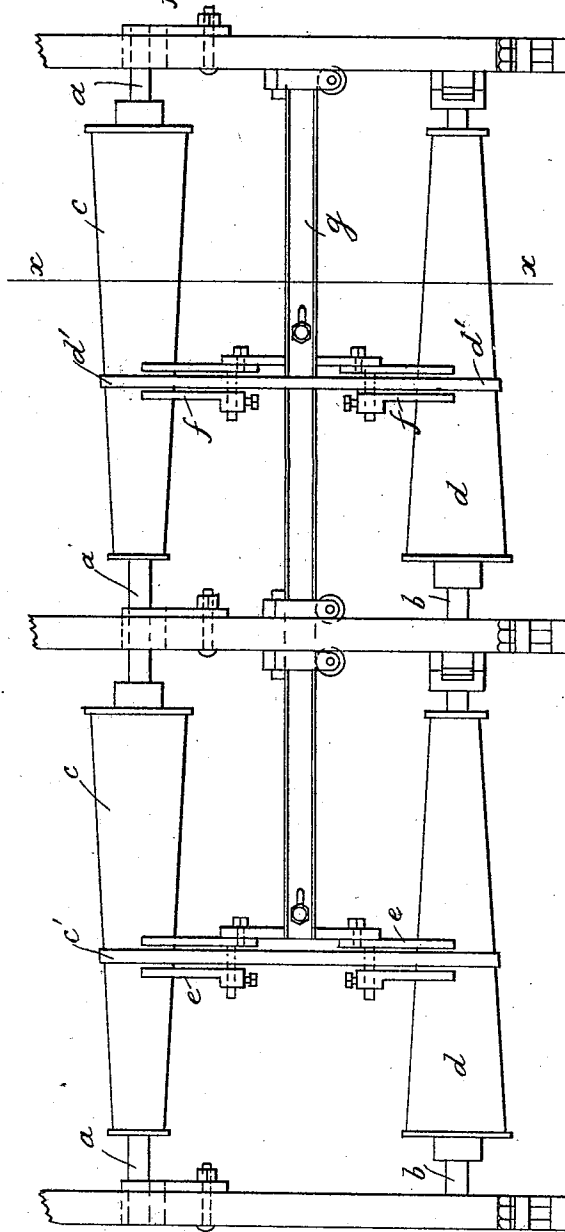


FIG-1--



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN ASHTON AND JOSEPH MOORHOUSE, OF SHAW, ENGLAND.

MEANS FOR DRIVING SLUBBING AND ROVING MACHINES.

SPECIFICATION forming part of Letters Patent No. 514,693, dated February 13, 1894.

Application filed December 1, 1892. Serial No. 453,903. (No model.) Patented in England September 28, 1886, No. 12,328.

To all whom it may concern:

Be it known that we, JOHN ASHTON and JOSEPH MOORHOUSE, subjects of the Queen of Great Britain and Ireland, and residents of Shaw, near Oldham, in the county of Lancaster, England, have invented certain Improvements in Means for Driving Slubbing and Roving Machines, (for which we have obtained Letters Patent in Great Britain, No. 12,328, bearing date September 28, 1886,) of which the following is a specification.

The object of this invention is an improved application of cone drums to the winding mechanism of slubbing, intermediate and roving frames, and also to the self-feeding regulators of lap machines whereby the irregularity in driving heretofore experienced and arising from unequal grip of the two edges of the strap upon the varying diameter of the cone drums is considerably obviated.

In performing our invention instead of employing a single pair of cone drums as heretofore we use two or more cones on the same driving and driven shaft and a corresponding additional number of cone straps capable of moving simultaneously and thus we are enabled to use narrower straps than heretofore and yet obtain a better grip and a more certain and reliable driving action.

On the accompanying drawings Figure 1 is a back view of so much of a roving frame as is necessary to explain our improvements which are illustrated applied thereto and which improvements are equally applicable to slubbing and intermediate frames. Fig. 2 is a transverse section of Fig. 1 on line $x-x$.

In both views a and b are the upper and lower cone shafts for imparting the varying speed to the winding and lifting mechanisms. In according with this invention each of these shafts is fitted with a pair of cones marked respectively c , c and d , d and round which cones are passed a pair of driving belts or straps c' and d' . It will be apparent that as the cones on each shaft are exact facsimiles of each other it will be necessary to insure their driving belts or straps occupying constantly the same relative position on each set of cones and that they shall be moved to and fro along

such cones exactly simultaneously. This is accomplished by lengthening out the usual rack bar g and by having a pair of strap forks e and f one for each strap c' and d' affixed thereupon. In this manner we are enabled to use straps of considerably narrower width and yet to obtain a better grip upon the cones and consequently a steadier and more reliable driving motion than has heretofore been practicable with single cones and wider straps. We also find that frames of considerably greater length can be driven upon this principle.

Our improvements are equally applicable to the self-feeding regulators of lap machines and consist in applying a pair of cones upon each cone shaft and which are driven and operated simultaneously as hereinbefore described—the strap levers (which are geared together by means of sector wheels in the ordinary way) being fitted in each case with a double (instead of a single) strap fork so as to move both driving straps simultaneously along their respective cones.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination, with the shafts a and b , of two similar cones c secured upon the shaft a , two similar cones d secured upon the shaft b under the said cones c , and two separate narrow driving belts c' and d' connecting the respective pairs of cones, substantially as and for the purpose set forth.

2. The combination, with the shafts a and b , of two similar cones c secured upon the shaft a , two similar cones d secured on the shaft b under the said cones c , two separate narrow driving belts c' and d' connecting the respective pairs of cones, and a belt shifting device operating upon both of the said belts simultaneously, substantially as and for the purpose set forth.

In testimony whereof we affix our signatures to the foregoing specification.

JOHN ASHTON.

JOSEPH MOORHOUSE.

Witnesses:

WALTER GUNN,

EDWIN SETTLE.