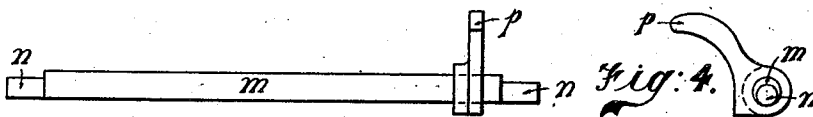
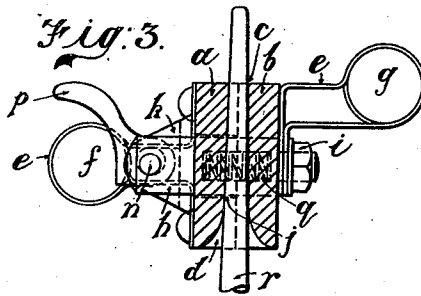
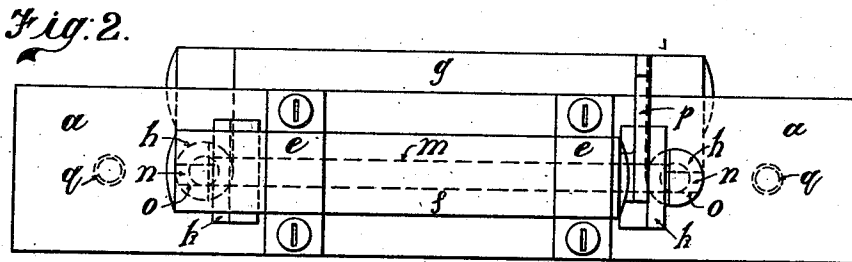
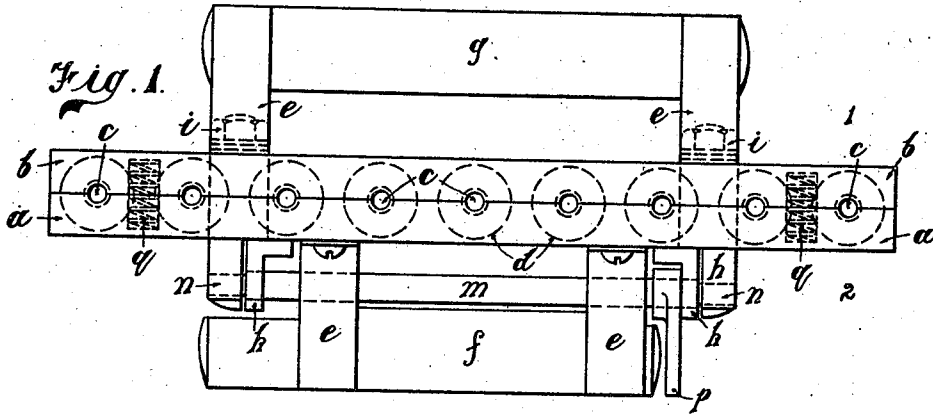


E. BUCK.

MEANS FOR PRESSING COP TUBES ON THE SPINDLES OF SPINNING MACHINES.
APPLICATION FILED JULY 11, 1921.

1,435,450.

Patented Nov. 14, 1922.



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UNITED STATES PATENT OFFICE.

EDWARD BUCK, OF MIDDLETON JUNCTION, NEAR MANCHESTER, ENGLAND.

MEANS FOR PRESSING COP TUBES ON THE SPINDLES OF SPINNING MACHINES.

Application filed July 11, 1921. Serial No. 483,822.

To all whom it may concern:

Be it known that I, EDWARD BUCK, subject of the King of Great Britain and Ireland, and resident of Middleton Junction, near Manchester, in the county of Lancaster, England, have invented new or Improved Means for Pressing Cop Tubes on the Spindles of Spinning Machines, of which the following is a specification.

10 This invention relates to a new or improved device for pressing cop tubes on to the spindles of spinning mules, ring spinning frames and the like.

Prior to the date of my invention it has been a common practice to place paper cop tubes upon the spindles by hand, pressing them down tightly on such spindles to the required position. This hand process takes up considerable time, is somewhat laborious whilst there is danger of spoiling a proportion of the tubes. It has also been proposed to place the tubes loosely on the spindles by means of tube barrels, afterwards pressing them down by hand.

25 My invention is designed to overcome the foregoing defects and consists of a tool or appliance comprising a pair of plates provided with holes to fit on or to receive the cop tubes, means for forcing the plates together to grip the tubes and for moving them apart to release them and handles by which the tool can be held and operated.

30 My invention will be fully described with reference to the accompanying drawings in which:

Fig. 1, is a plan of a form of tool or appliance constructed in accordance with my invention;

Fig. 2, front elevation of same;

40 Fig. 3, sectional end elevation on line 1—2 of Fig. 1 and

Fig. 4, front and end elevations, respectively, of part of the means for pressing the main parts of the tool together.

45 In carrying out my invention I provide two plates *a* and *b*, preferably of aluminium because of its lightness which are held tightly together and drilled with conical holes *c* to the same taper as the spinning spindles or the paper cop tubes to be fitted on the latter and a distance apart suitable to the "pitch" of the spindles. The holes are formed half in each plate and are countersunk or flared at their lower ends as at *d* to guide the holes onto the cop tubes placed, in the first instance, loosely on the spindles.

Any convenient number of holes may be formed in the plates. Each plate has secured to its outer side brackets *e* to carry handles *f* and *g*. The brackets for the latter are secured to the plate *b* by studs *h* and nuts *i*, the studs projecting freely through holes *j* in the plate *a*. On the front of the latter are ears or brackets *k* bored to support a shaft *m* having eccentric portions *n* at its ends passing into holes *o* in the studs. The shaft *m* has fixed upon it a lever *p*. Between the plates *a* and *b* I locate springs *q* which always tend to force the plates apart.

The appliance is used as follows:—The paper cop tubes are either placed loosely on the spindles by hand or by tube barrels the plates *a* and *b* in either case being previously forced close together against the influence of springs *q* by moving the lever *p* and thus turning the eccentric shaft *m*. The appliance is then gripped by both hands and moved in the direction of the length of the spindles, one of which is shown in Fig. 3 at *r* so as to force the cop tubes on the spindles to the position required. The lever *p* is then moved in the opposite direction to allow the springs *q* to force the plates *a* and *b* apart and enable the appliance to be withdrawn from the spindles when the process is repeated again with the next lot of spindles and so on.

What I claim as my invention and desire to secure by Letters Patent is:—

1. An appliance for simultaneously pressing a plurality of cop tubes down upon their respective spindles in spinning machines, said appliance comprising two plates, tapered holes formed along the joining line of such plates, means for guiding the plates towards each other and means for keeping them tightly together when desired to grip the cop tubes in the tapered holes between the plates.

2. An appliance for simultaneously pressing a plurality of cop tubes down upon their respective spindles in spinning machines, said apparatus comprising two plates, tapered holes formed along the joining line of the plates, springs placed between the plates to keep them normally apart, and a lever and eccentric shaft, one end of the lever being adapted to press one plate against the other to grip the cop tubes, on rotation of the shaft.

3. An appliance for simultaneously pressing a plurality of cop tubes down upon their

respective spindles in spinning machines, adapted to press one plate against the other
said apparatus comprising two plates, a handle fitted to each plate, tapered holes
formed along the joining line of the plates, to grip the cop tubes, on rotation of the
5 springs placed between the plates to keep shaft. 10
them normally apart, and a lever and eccentric shaft, one end of the lever being
In testimony whereof I have hereunto set
my hand.

EDWARD BUCK.