

W. SHUFFLEBOTTOM & T. KENWORTHY.
 MEANS FOR ENABLING DRIVING AND OTHER ROPES TO BE JOINED TOGETHER.
 APPLICATION FILED APR. 25, 1910.

979,214.

Patented Dec. 20, 1910.

2 SHEETS—SHEET 1.

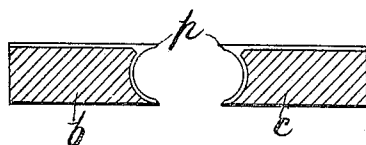
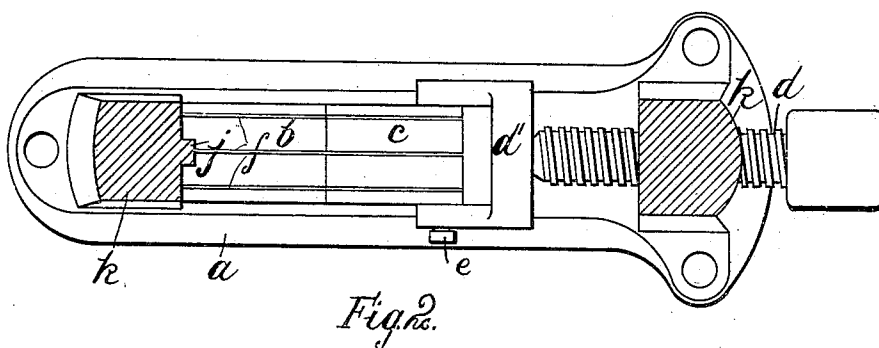
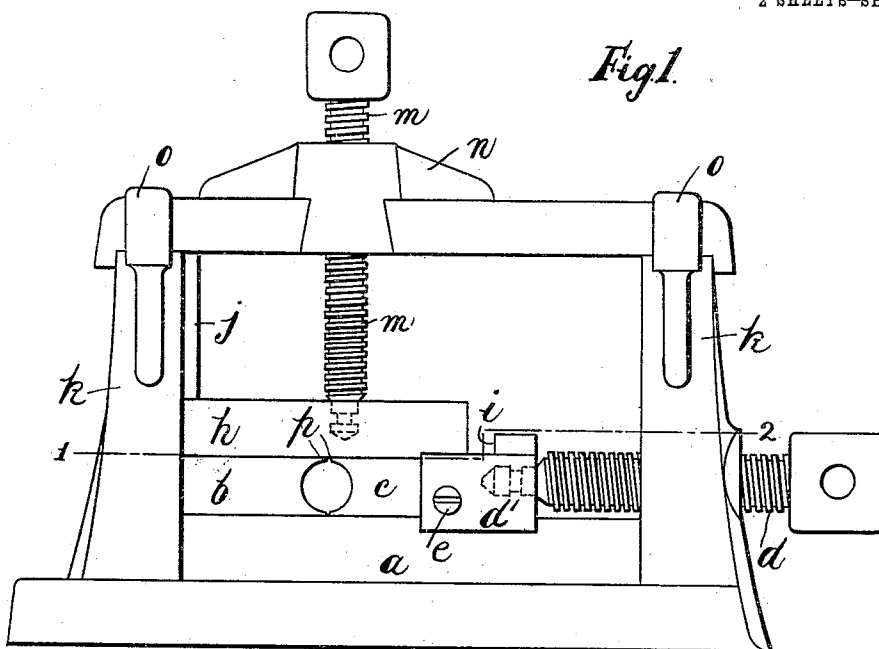


Fig. 3.

Witnesses.

Wm N Bates
 J. M. Mistor

Inventors.

William Shufflebottom
 and Thomas Kenworthy.
 by Robert W. Jenner, Attorney.

W. SHUFFLEBOTTOM & T. KENWORTHY.
 MEANS FOR ENABLING DRIVING AND OTHER ROPES TO BE JOINED TOGETHER.
 APPLICATION FILED APR. 25, 1910.

979,214.

Patented Dec. 20, 1910.

2 SHEETS—SHEET 2.

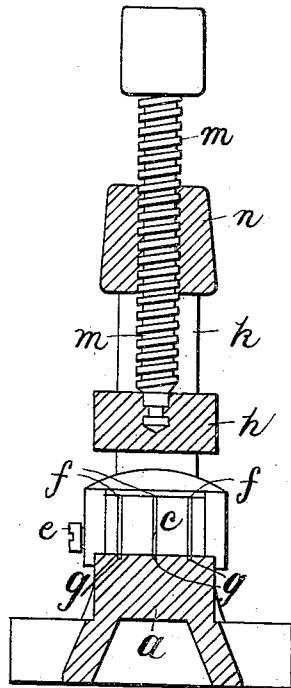


Fig. 3.

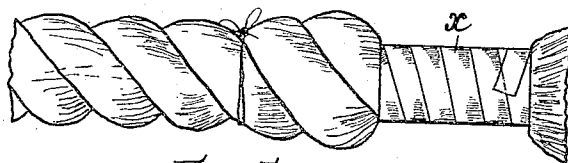


Fig. 5.

Witnesses.
Wm H Bates
J. H. Minter

Inventors.
William Shufflebottom
and Thomas Kenworthy
by Herbert W. Jenner.

UNITED STATES PATENT OFFICE.

WILLIAM SHUFFLEBOTTOM AND THOMAS KENWORTHY, OF ASHTON-UNDER-LYNE,
ENGLAND.

MEANS FOR ENABLING DRIVING AND OTHER ROPES TO BE JOINED TOGETHER.

979,214.

Specification of Letters Patent.

Patented Dec. 20, 1910.

Application filed April 25, 1910. Serial No. 557,529.

To all whom it may concern:

Be it known that we, WILLIAM SHUFFLEBOTTOM and THOMAS KENWORTHY, subjects of the King of Great Britain and Ireland, and residents of Ashton-under-Lyne, in the county of Lancaster, England, joiner and grocer, respectively, have invented certain new and useful Means for Enabling Driving and other Ropes to be Joined Together, of which the following is a specification.

This invention relates to press mechanism for compressing the end portions of ropes so that they may have connecting ferrules or collars slipped onto them.

Our invention will be fully described with reference to the accompanying drawings which indicate an appliance constructed in accordance with our invention, Figure 1 being a front elevation of same, Fig. 2 sectional plan on line 1, 2 of Fig. 1, Fig. 3 sectional end elevation on line 3, 4 of Fig. 1 and Fig. 4 sectional elevation of the two dies or blocks removed from the machine. Fig. 5 is a side view of one end portion of a rope compressed, and bound with a strip of metal.

In accordance with our invention we provide a suitable bed *a* of a strong character adapted to support a stationary die or block *b* of steel or other hard material cut out at the right hand end substantially to a semi-circular formation corresponding in radius to half the diameter the ends of the rope are to be compressed to. In conjunction with such a die we employ a similar but movable die *c*, slidable on the bed *a* and moved toward the first die by a screw *d* or similar means. The screw may be mounted in the frame and be passed through a stationary nut secured in the latter or through a tapped hole as is the case in the drawings. The inner end of the screw may bear directly against the rear end of the block *c* though we prefer to interpose between the screw and die a block *d'* embracing and sliding on the frame *a*, the die being secured to the block by screws *e*. The screw *d* may be moved forward by a hand wheel secured at its outer end though in the drawings such end is shown enlarged and provided with a "tommy" hole through which a rod may be passed for rotating purposes. Each of the dies *b* and *c* is provided with grooves *f* in the semi-circular and top and bottom faces, the upper portion of the

bed *a* also having grooves *g* to correspond therewith, these grooves being to receive short lengths of wire.

In the arrangement so far described each rope end is, in turn, placed between the hollow ends of the dies and compressed by turning the screw *d* inward and to prevent the material of the rope rising upward during the act of compression laterally we employ a slidable or pivoted clamp *h*, the former being shown in the drawings. This is located above the two dies and is forced downward toward the latter either prior to or during the compressing operation so holding the rope from rising. The clamp is slidable in guideways one of which is formed in the inner end of the block *d'* and marked *i* while the other consists of a strip *j* fixed to one of the upstanding arms *k* of the machine frame. The clamp is forced downward by means of a screw *m* passed through a tapped hole in a cross head *n* secured to the side frames *k* by pivoted clamps *o* which can be turned down from the position shown in the drawings to allow the cross head and clamp to be quickly removed when required. This removal takes place after the rope end has been compressed by the two dies or blocks so as to leave plenty of room for the wires placed in the grooves *f* to be pulled upward around the compressed rope and have their ends twisted so as to keep the rope in the compressed condition after the movable die *c* has been withdrawn to release the rope end. The wires keep the ends of the rope in compression and enable the ferrules or other similar connecting or coupling devices to be placed thereon. It will be observed that the dies *b* and *c* terminate in feather edges *p* so that when their semi-circular portions are together they completely embrace the whole of the fibers of the rope.

In place of the vertically-slidable clamp *h* we may employ a clamp pivoted at one end to one of the side arms *k* and forced down in the direction of the dies from its free end by a screw or other simple means.

Instead of employing grooved dies, and wire for binding the rope ends we may use plain dies with semi-circular ends only. The wire we replace by winding around each end of the rope for a short distance and while at its full diameter and before placing in the machine a narrow strip *x* (Fig. 5) of tin or other suitable sheet metal. When the

rope end is being compressed the coils of tin become crimped on their inner sides, that is next to the rope fibers while remaining smooth externally and securely hold such
5 fibers in the manner shown in Fig. 1 until the ferrule hereinbefore referred to is placed in position.

The end portion around which the strip *x* is wound is much longer than the collar
10 which is slipped over it. After the collar has been placed over the strip the end portions of the strip can be unwound with the fingers, and the collar can be slid longitudinally, so that the whole of the strip can be
15 pulled away leaving the collar on the rope.

What we claim is:

1. In a press for compressing a rope, the combination, with a supporting frame, of a
20 pair of dies mounted in the frame and provided with grooves for engaging with the rope in their adjacent faces, operating devices for causing said dies to compress that portion of the rope inserted between them,

and a movable block which overlaps the said dies and holds them against the said frame. 25

2. In a press for compressing a rope, the combination, with a supporting frame, of a pair of dies mounted in the frame and provided with grooves for engaging with the rope in their adjacent faces, operating de-
30 vices for causing said dies to compress that portion of the rope inserted between them, and a movable block which overlaps the said dies and holds them against the said frame, said dies being also provided with narrow
35 cross-grooves for binding wires in their adjacent faces and in their surfaces which are adjacent to the said movable block.

In testimony whereof we have hereunto set our hands in the presence of two wit-
40 nesses.

WILLIAM SHUFFLEBOTTOM.
THOMAS KENWORTHY.

Witnesses:

AMY E. EVINS,
DOROTHY M. DAVIES.