No. 686,440. Patented Nov. 12, 1901.

O. BUCKLIN.

ROPE MACHINE.

(Application filed May 17, 1901.)

(No Model.)

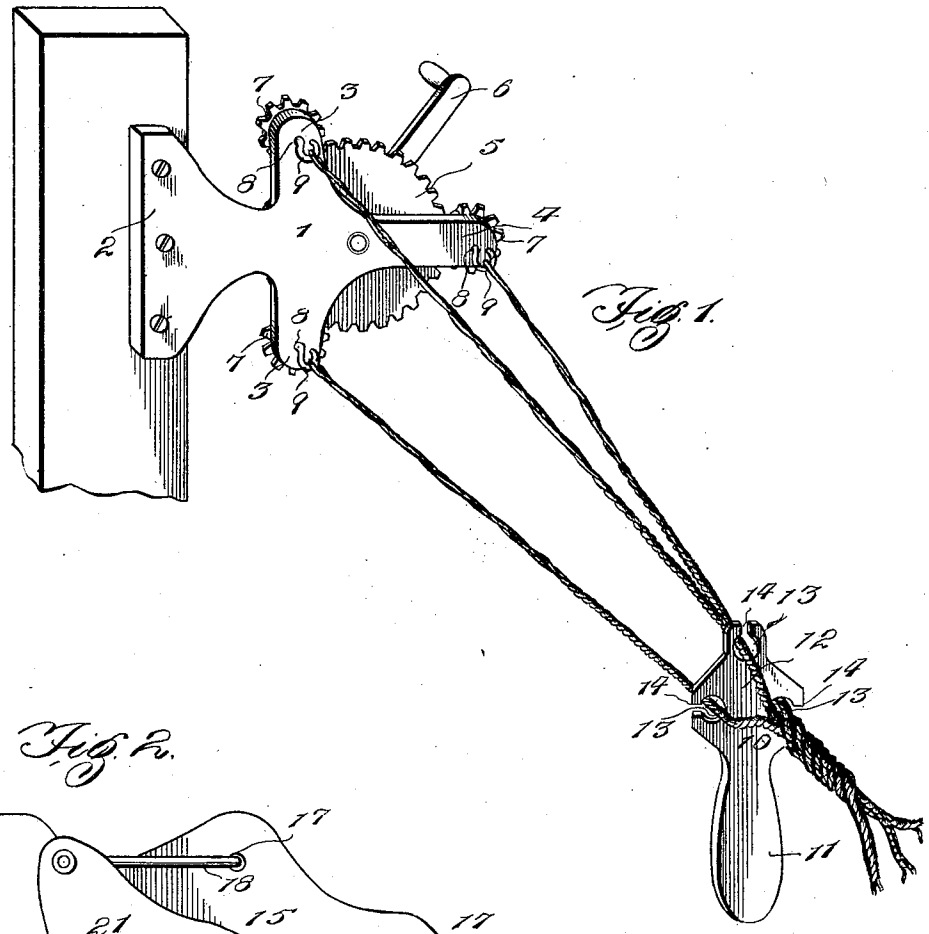


Fig. 1.

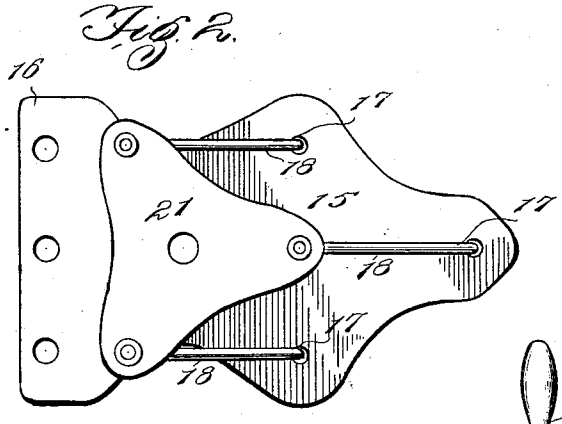


Fig. 2.

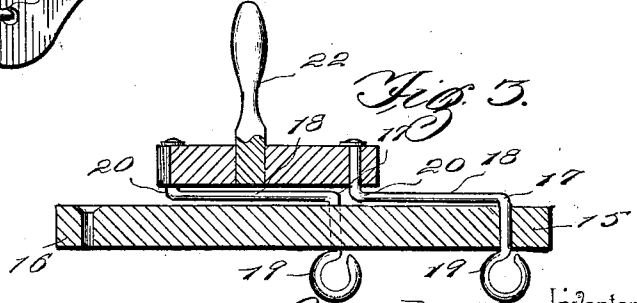


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

ORSON BUCKLIN, OF MARIETTA, MINNESOTA.

ROPE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 686,440, dated November 12, 1901.

Application filed May 17, 1901. Serial No. 60,730. (No model.)

To all whom it may concern:

Be it known that I, ORSON BUCKLIN, a citizen of the United States, residing at Marietta, in the county of Lac qui Parle and State of Minnesota, have invented a new and useful Rope-Machine, of which the following is a specification.

This invention relates to rope-making machines; and the object of the same is to provide simple and effective means whereby rope can be quickly made by hand from lengths or strands of cord, twine, and the like, and is particularly intended for use by farmers who have lengths or strands of cord and twine left over from binding-machines or other similar devices, which are usually wasted, because dealers in such merchandise will naturally refuse to take back partially-used bales or spools of the same, and by means of the improved device such residue can be easily formed into rope for use as halters or other purposes, the improved machine being cheap, strong, and durable, as well as being capable of constructing any length of rope.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of the improved rope-making machine applied and arranged in operative position. Fig. 2 is an elevation of a modified form of the machine. Fig. 3 is a horizontal section on the line 3 3, Fig. 2.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

Referring to Fig. 1, the numeral 1 designates a frame or plate having a securing extremity 2 for attachment to a post, door, or the like and formed with opposite side extensions 3 and an intermediate extension 4 at a right angle to the extensions 3. On the rear side of the frame at about the point where the extensions merge into each other a master-gear 5 is rotatably mounted and is provided with an operating crank or handle 6. On the rear side of the extremities of the extensions pinions 7 are rotatably mounted and in continual mesh with the said master-gear, the shafts 8 of the said pinions being continued through the extremities of the extensions to the front of the latter and terminally formed into hooks 9, which rotate equally with the said pinions. All the hooks are turned the same way and are simultaneously rotated, and thereby a uniform twisting action can be set up by the same. A strand-guide 10 is employed with the improved device and comprises a lower handle or grip 11 and an upper body 12, having opposite side and upper strand openings 13, having outlet and inlet throats 14, the throats of the side openings having a transverse direction in relation to the body and opening out through the side edges of the latter, whereas the throat of the upper opening is vertically disposed and passes through the top edge of said body.

In the operation of the improved machine a number of strands of cord or twine are attached to the hooks 9 and extended away from the machine any suitable distance and terminally held and secured to any suitable device at a distance from the twisting mechanism. It will be understood that the same number of strands are attached to all the hooks, and after being arranged as set forth an operator turns the crank or handle 6, thereby rotating the master-gear 5 to set in motion the pinions 7, the latter tightly twisting the strands. After the strands are fully twisted to a degree of tightness desired the strand-guide 10 is applied thereto, so that the several strands will individually engage the openings 13, and the rotation of the gear and pinions is then continued to cause the strands to twist into a rope behind the said guide, as shown by Fig. 1, the guide being moved toward the frame during this twisting operation. After the strands are fully taken up in the formation of the rope the guide is detached and the strands secured in any preferred manner. An operator holds and moves the guide 10 on the strands during the twisting operation to form a rope from the latter, and the main advantage of the said guide is that it causes the twists of the strands to be disposed in relation to each other in a regular and even manner, and by manually moving the guide at regular intervals on the strands and keeping

said guide close to the twisting portions of the strands the latter will be more tightly twisted. It is obvious that in the absence of the guide the strands would loosely and irregularly twist.

In Figs. 2 and 3 a modified form of the machine is shown and comprises a frame or support 15, with a securing extremity 16. The angular extremities 17 of a series of three twisting-cranks 18 are rotatably mounted in the main portion of said body and arranged in regular triangular position in relation to each other. The extremities 17 have their terminals formed into hooks 19 in advance of the frame, and the opposite extremities of the cranks are angularly bent, as at 20, and movably held by a connector-plate 21, which is supplied with a centrally-disposed operating-handle 22, whereby all the cranks are simultaneously moved and the hooks 19 uniformly rotated to twist the strands and form the rope. The guide, heretofore described, is also similarly used with this modified form of the device, and it will be seen that the latter form of the improved machine is greatly simplified by dispensing with the master-gear and pinions and the cost of production thus also materially reduced.

The improved device in either of its forms will be found exceptionally convenient and useful for the purpose for which it is designed, and an economical use of comparatively short lengths of twine or cord for producing rope will result by the employment of the same.

Having thus described the invention, what is claimed as new is—

1. In a rope-machine of the class set forth, the combination of twisting mechanism for holding and twisting strands of cord, and a manually-operated strand-guide having openings therein to receive the individual strands and freely slidable on the latter.

2. In a rope-machine of the class set forth, the combination of mechanism for holding and twisting strands of cord, and a manually-operated guide for holding the individual strands separated, provided with a depending handle, the said guide being freely applicable and detachable to and from the strands and slidable longitudinally of the latter.

3. In a rope-machine, the combination of a frame, a series of cranks having angular terminals rotatably mounted in the said frame and terminally formed into hooks, and a connector-plate to which the opposite extremities of the cranks are movably attached, the said plate being provided with operating means.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ORSON BUCKLIN.

Witnesses:
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