June 30, 1925. 1,543,713

J. W. LAUX

WAXING DEVICE

Filed Jan. 20, 1923

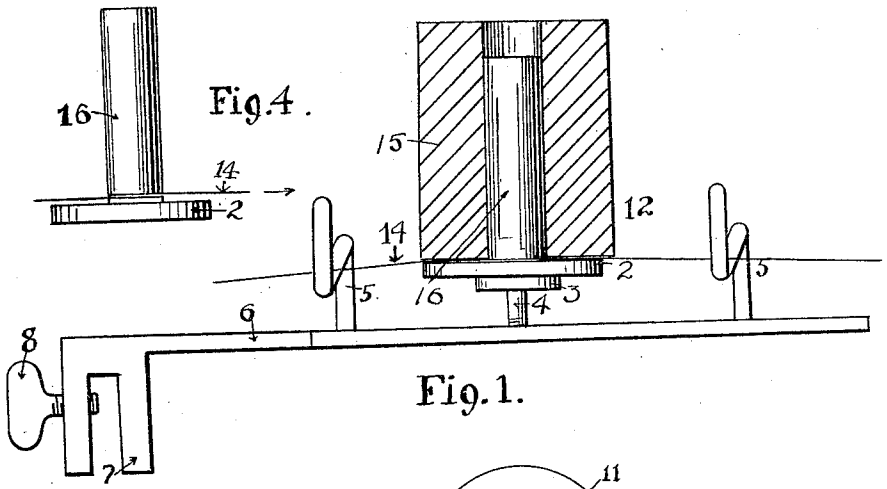


Fig. 4.

Fig. 1.

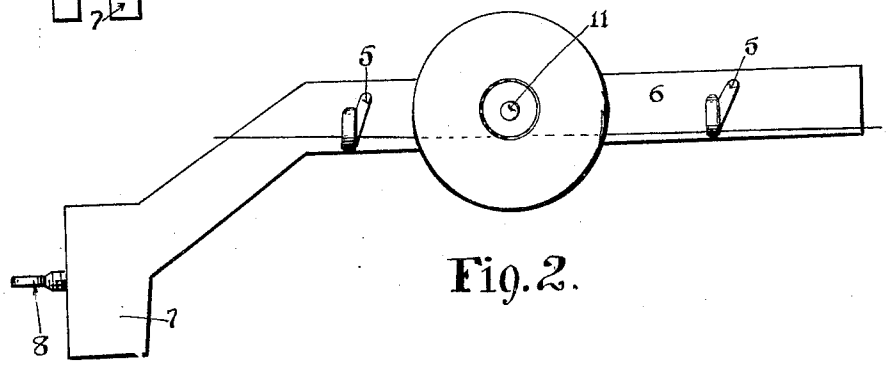


Fig. 2.

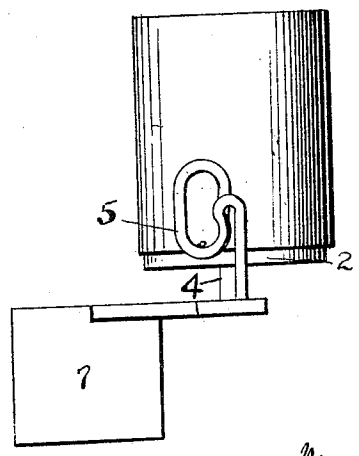


Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHN W. LAUX, OF PHILADELPHIA, PENNSYLVANIA.

WAXING DEVICE.

Application filed January 20, 1923. Serial No. 613,866.

To all whom it may concern:

Be it known that I, JOHN W. LAUX, a citizen of the United States, and a resident of the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Waxing Devices, of which the following is a specification, reference being had to the drawings annexed.

My device belongs to that class of waxing devices that wax the thread by passing it beneath a cake of wax which is rotated by the passage of the thread. Its purpose is to simplify the construction of the device, to free the device from the need of tension devices intended to secure the rotation of the wax carrier by making the thread without any exterior tension, pass around the stem of the spool and cause the latter to rotate so that the thread will be rolled under the wax. This enables the thread to be lead in a straight line from the wax carrier without any bend at the guide eyes being required to make the device operative hence the strain on the thread by drawing it taut over a stationary surface liable to collect wax and cause sticking is avoided, and in other simplifications and increased efficiencies (notably with the finer and more fragile threads) as will appear from the following parts of this specification or be evident from it to a workman skilled in the art.

Fig. 1 is a side elevation of the device. Fig. 2 is a plan view thereof. Fig. 3 is an end view thereof. Fig. 4 is a side elevation of the spool encircled by the thread.

The support, 6, can be mounted from any convenient bar by means of jaws, 7, 7, and the set screw, 8. It carries the thread guide eyes, 5, 5, and the waxer which consists of the platform, 3, that is suitably supported by the standard, 4. It has an upwardly projecting spindle, 11, that positions and forms a bearing around which the spool, 16, revolves freely. The spindle, 11, and the top of the platform, 3, are polished to secure the least friction possible between them and the spool. One of the guide eyes, 5, is arranged as near as may be on a straight line with the source of supply of the thread and the side of the cylinder, 15, of the spool near the inside side of the flange, 2, and the other of the guide eyes is arranged on a substantially straight line between the side of the cylinder, 15, and the collecting device, so that there will be no bend of the thread at either of the eyes, 5, 5, either at the feed or at the draw-off of the thread. These eyes do not need to guide the thread, which can pass freely through them without touching the metal of the eyes. I set these three parts, in substantially a straight line, so that the thread will not press the spool against the spindle, 11. By arranging these parts relatively to each other the friction between the spool on the spindle, 11, is so slight that the thread given a single turn around the cylinder of the spool readily will revolve this spool without any tension whatever on the thread. The spool is in practice made of wood, and should be very well polished at the outside of the flange and inside the socket in the cylinder. It is well not to have the outside of this cylinder too highly polished.

The wax cylinder is merely set on the spool and need not be weighted or have any pressure pushing it down on the thread. The absence of all tension and of any pressure upon the thread makes the device practicable for the thinnest and most fragile thread. At the same time the slight rising of the thread 14 by passing completely around the cylinder of the spool makes the waxing very thorough even when the wax cylinder has worn down to a negligible weight. The bent bar form of the support, 6, has many advantages in attachment.

I claim.

1. In a thread waxing device, the combination with a support of a pair of thread guides, a freely rotatable spool having a cylinder, a wax cylinder fitting over the cylinder of the spool and movable vertically and circularly thereon, a platform and spindle for the spool, the spool being mounted rotatably to said spindle and mounted so that the lead in thread guide is in a substantially straight line between the source of supply and the side of the spool cylinder, and the draw-off thread guide is in a substantially straight line between the collecting device and the side of the cylinder, the cylinder being adapted to have the thread pass completely around it.

2. The device as defined in claim 1 with the following additional element:—the said spool having the side of the spindle in a straight line with the two thread guides.

JOHN W. LAUX.