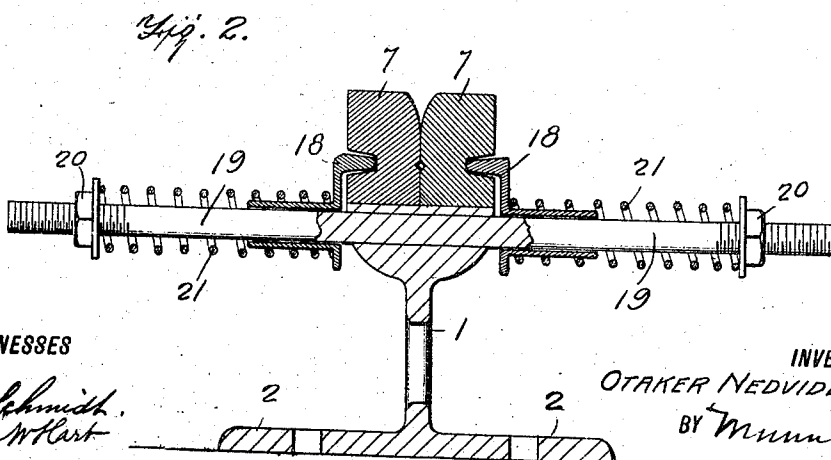
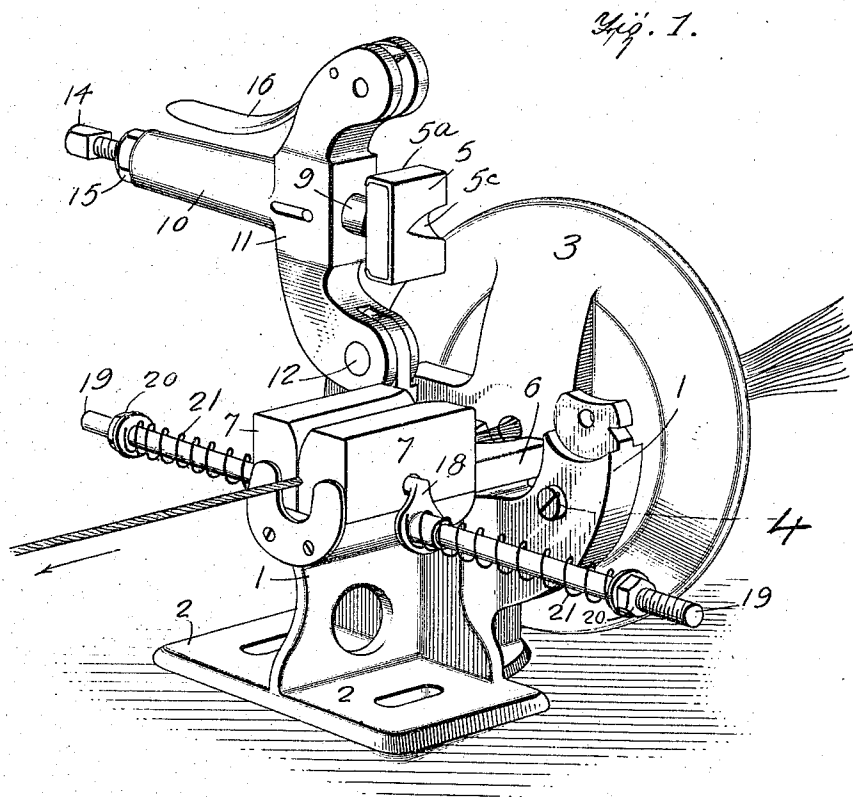


O. NEDVIDEK.
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APPLICATION FILED MAY 6, 1912.

1,045,064.

Patented Nov. 19, 1912.

2 SHEETS—SHEET 1.



WITNESSES

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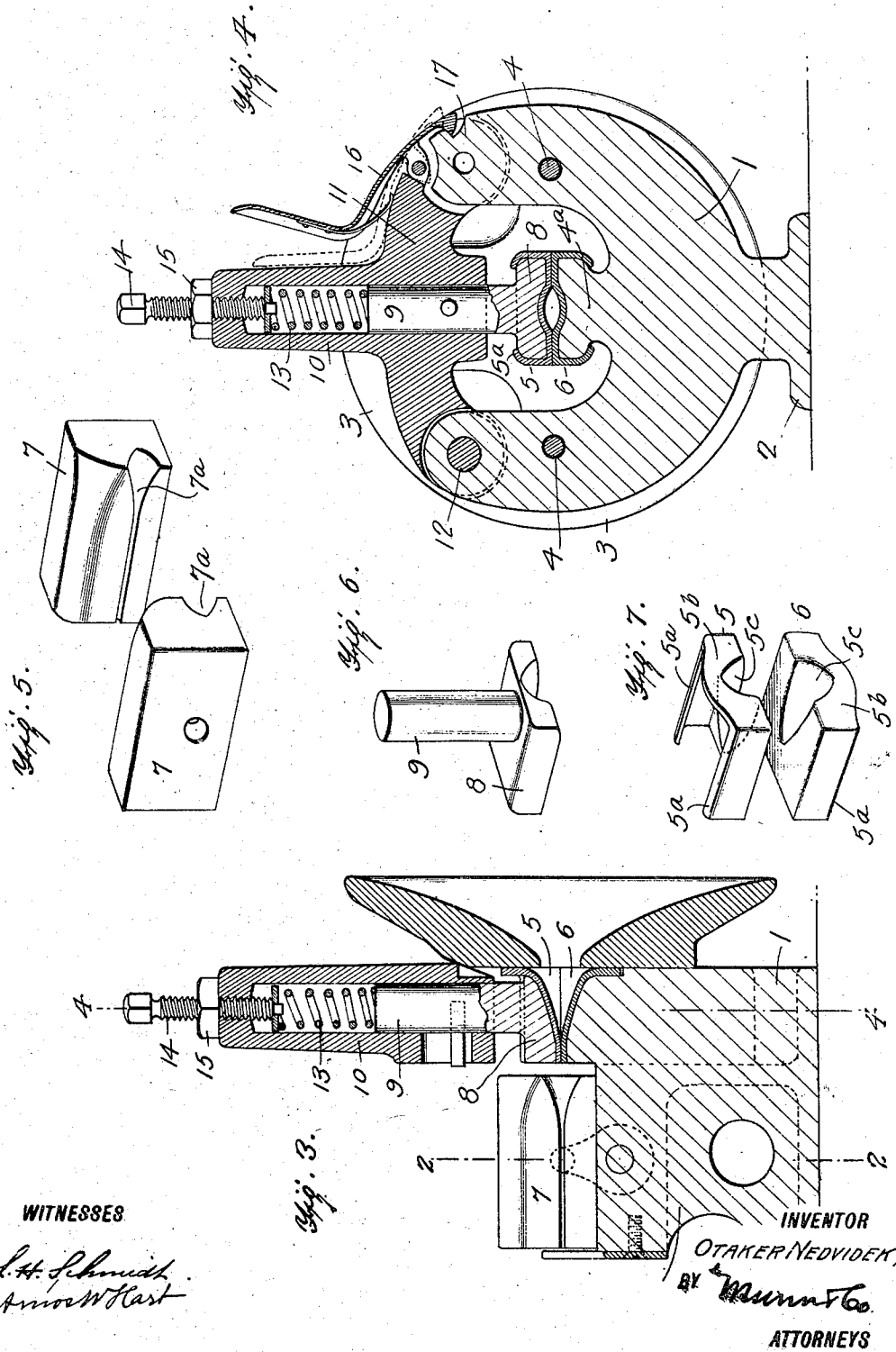
ATTORNEYS

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UNITED STATES PATENT OFFICE.

OTAKER NEDVIDEK, OF MILWAUKEE, OREGON.

YARN CONDENSER AND POLISHER FOR CORDAGE-SPINNING MACHINES.

1,045,064.

Specification of Letters Patent.

Patented Nov. 19, 1912.

Application filed May 6, 1912. Serial No. 695,390.

To all whom it may concern:

Be it known that I, OTAKER NEDVIDEK, a citizen of the United States, and a resident of Milwaukee, in the county of Clackamas and State of Oregon, have invented an Improved Yarn Condenser and Polisher for Cordage-Spinning Machines, of which the following is a specification.

My invention is an improvement in so-called "nippers" or machines designed for treating, that is to say, condensing and rounding and polishing hemp yarn or slivers preliminary to spinning for making ropes and cordage.

The invention is embodied in the construction, arrangement, and combination of parts hereinafter described, and illustrated in the accompanying drawings, in which

Figure 1 is a perspective view of the apparatus, the hinged yoke carrying one of the condensing dies being shown open as required for re-threading. Fig. 2 is a vertical cross section on the line 2—2 of Fig. 3. Fig. 3 is a central vertical longitudinal section. Fig. 4 is a vertical cross section on the line 4—4 of Fig. 3. Fig. 5 is a perspective view of the finishing blocks or dies. Fig. 6 is a perspective view of the stem and block of the upper condensing die. Fig. 7 is a perspective view of the condensing shell dies separated from other parts and from each other.

The working parts of the apparatus or "nipper" are attached to, and supported upon a pedestal 1 having a horizontal flanged base 2 adapted to be screwed to a floor or other fixed support. A trumpet or funnel-shaped guide 3 is fixed vertically on the pedestal, it being secured to the upwardly projecting arms of the same by means of screws 4—see Figs. 1 and 4.

Directly in rear of the trumpet guide 3 are arranged the two initial or preliminary condensing dies 5 and 6 and, in rear of the latter, are the finishing blocks or dies 7. As shown in Fig. 7, the dies 5 and 6 are constructed in what may be termed shell form, being struck up and formed from a steel plate and constructed with in-turned side flanges 5^a and a closed front or head 5^b, the dies being thus left open at one end to adapt them for sliding engagement with holders of corresponding form. One of the said holders is a block 8—see Fig. 6—which is provided with a stem 9 adapted to slide in a vertical hollow guide 10—see

Fig. 3—the latter being an attachment of a curved yoke 11—see Fig. 1—which is pivoted to the pedestal at 12 and adapted to be swung open for re-threading the nipper. The front portion of each die 5, 6, is formed with a tapered indent or depression 5^c which, when the dies are together, as shown in Figs 3 and 4, form a tapered guide through which the hemp yarn or sliver is drawn, and, by pressure of the dies thereon, the same is compressed and condensed. A spiral spring 13 is arranged in the tubular guide 10 of the yoke 11, and a set-screw 14 and jam-nut 15 serve as means for adjusting the tension of the spring, or, in other words, regulating the pressure between the dies 5 and 6. In practice, the lower die 6 may be provided with a spring-pressed stem in the same way as the upper one, but I do not deem it necessary to illustrate the construction, since it would be practically a duplication.

As shown in Fig. 4, the lower die 6 is applied to a part 4^a of the pedestal, it being understood that it is shaped substantially the same as the block or holder 8 to which the upper die 5 is applied. The free end of the yoke 11 carrying the upper die is provided with a spring-pressed lever catch 16 which is adapted to lock at 17 with a shoulder on one of the arms of the pedestal. Thus the yoke occupies in use the locked position indicated in Figs. 3 and 4, but when it is required to re-thread the machine or to obtain access to the dies 5 and 6 for removing them and substituting others, upon operating the catch 16, the yoke may be thrown back as shown in Fig. 1.

The finishing dies 7 are elongated blocks having a tapered score 7^a extending longitudinally in their faces, the same forming, when the blocks are put together as in Fig. 1, a tubular score or guide in which the hemp yarn or sliver is rounded and polished to the degree required preparatory to twisting or spinning. The score blocks are held down upon the horizontal top portion of the pedestal by means of hooks or dogs 18 whose prongs enter side openings in the blocks and are provided with sleeves adapted to slide on a rod 19 arranged horizontally and projecting laterally from the pedestal 1. The ends of the rod are provided with nuts 20, for compressing the spiral springs 21 which encircle the rod and are arranged between the nuts and the flanged heads of the hooks.

It is apparent that, by drawing back the dogs 18, they may be disengaged from the rounding dies 7 and the latter removed to permit substitution of others, when required. The upper inner corners of the blocks are rounded, as shown in Figs. 1 and 2, to facilitate the introduction of the sliver when threading or re-threading the nipper.

It will be understood that when the operator desires to thread the machine, the catch 16 being released, the yoke 10 may be swung back, as shown in Fig. 7, and, the yarn or sliver being introduced through the central hole in the trumpet guide 3, it is drawn over the lower condensing die 6 and then down between the rounded corners of the blocks 7 and into the score of the same. The initial dies 5 and 6 compress, condense, and to a certain extent polish the yarn or sliver, and the finishing dies or blocks 7 round, polish, and finish the sliver while being twisted in the usual way.

It will be seen that the machine is thus especially adapted for easy, convenient, and rapid threading and re-threading and that the adaptation of the dies 5, 6, and 7 for removal and replacement is an important advantage in this class of machines. The spring 13 acting upon the condensing dies allows them to yield for the passage of knots or lumps of lint or other foreign material passing with the yarn or sliver, so that the latter is not broken or unduly strained.

What I claim is:—

1. The initial condensers composed of opposite jaws, detachable shell dies applied to the latter and formed with tapered indents

and inturned side flanges adapted to clasp the side portions of the jaws, one end of the dies being open and the front closed and abutting the jaws when the dies are adjusted in place, as described.

2. The combination with a supporting frame, a trumpet guide, and condensing dies, of a yoke hinged to the frame and adapted to swing transversely of the same, said yoke having a hollow guide, a die holder provided with a stem, adapted to slide in said guide, an expansion spring pressing on said stem, means for adjusting the tension of the same, and a spring catch for securing the yoke closed, as described.

3. The combination with a supporting frame, of finishing dies consisting of blocks arranged opposite each other and having their adjacent inner sides scored longitudinally to form a yarn guide, and their upper inner corners rounded and a spring attachment for pressing the blocks together, as described.

4. The combination with a supporting frame and finishing dies slidable laterally thereon toward and from each other, and a horizontal rod held in the frame below the dies, of dogs detachably engaging said blocks and having tubular portions adapted to slide on said rod, expansion springs applied to the dogs and rods, and means for adjusting the tension of the same, as described.

OTAKER NEDVIDEK.

Witnesses:

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