

straightening press, G, is not absolutely necessary, yet it greatly facilitates the proper formation of the point.

I claim as my invention—

1. The V-shape pointing-dies $f f^1$, combined with a carrier having an automatic carrying movement, so as to present the blanks to the said dies for operation substantially in the manner set forth.

2. In combination with the two carriers D and I, each having an intermittent progressive movement, the transferring device consisting of the slide H and transverse slide H^2 , with two jaws, h and h^1 , constructed and arranged to operate substantially as set forth.

3. In combination with a carrier, I, having an intermittent progressive movement, the adjuster n , operating as described, to govern the projections of the blanks from the said carrier.

4. In combination with a carrier having an intermittent progressive movement, the U-shaped dies in Fig. 10, arranged and operating so as to turn around the head, substantially as set forth.

5. In combination with the subject-matter of the fourth clause of claims, the grooving and eye-punching dies, substantially as described.

6. In combination with the subject-matter

of the fourth clause of claims, the eye-punching and countersinking dies, substantially as described.

7. In combination with a carrier having an intermittent progressive movement, the wheel P, the axis of which is at right angles to the axis of the said carrier, constructed and operating so as to receive the needles from the said carrier and transfer the said blanks to the pointing mechanism of a needle-machine.

8. In combination with the pointing apparatus constructed and operating to carry and revolve the needles, substantially such as described, the wheel P, constructed and operating to present the needles to the said pointing apparatus.

9. In the carrying-plate T of the pointing apparatus, the notches t' , when inclined in the direction of the movement of the said plate, substantially as and for the purpose specified.

10. In combination with the carrier of the pointing apparatus, constructed as described, the arrangement of the mills U so as to revolve toward the said carrier, substantially in the manner and for the purpose specified.

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Witnesses:

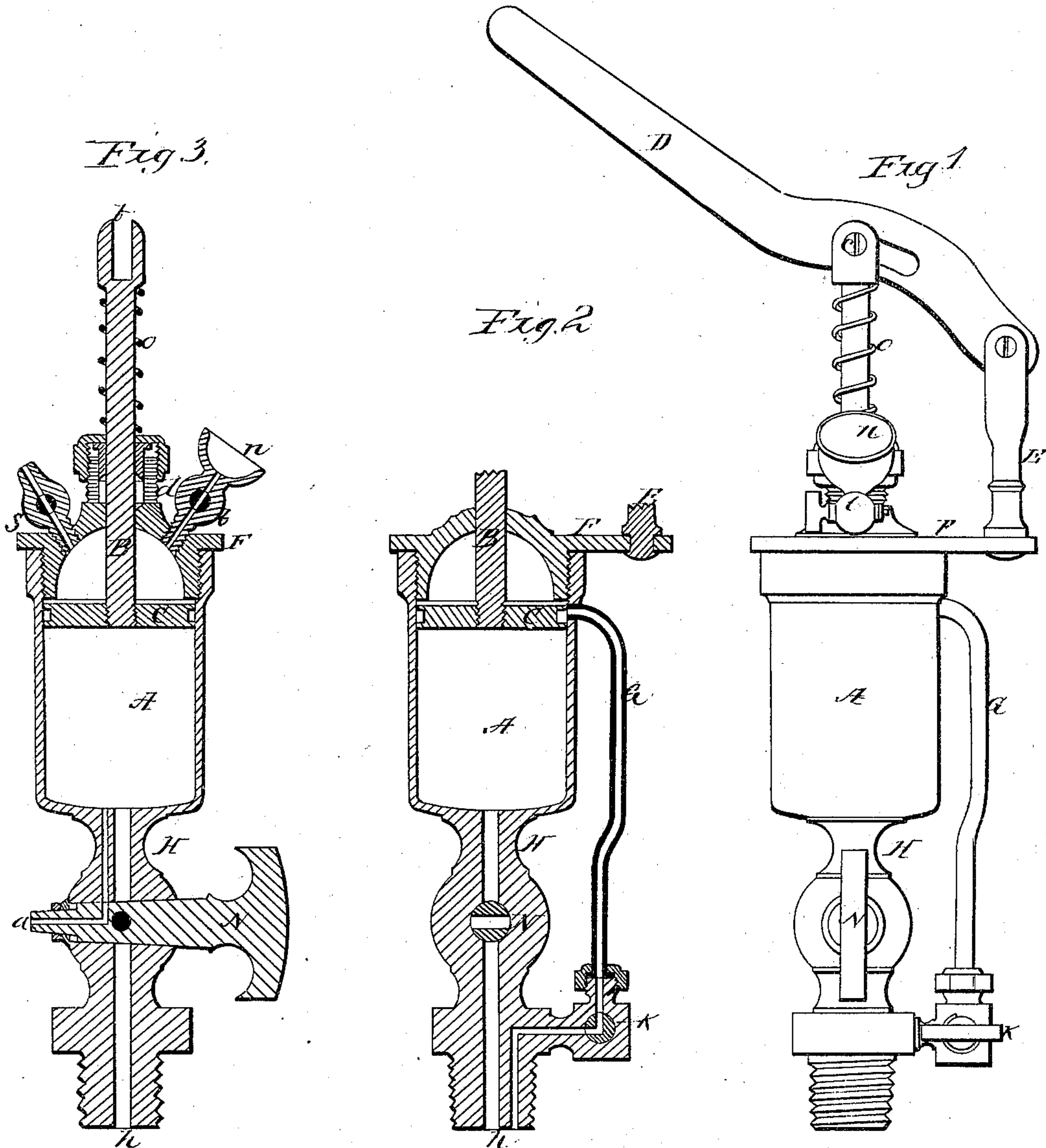
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Lubricator.

N^o 104,279.

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Witnesses.

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