

No. 619,893.

Patented Feb. 21, 1899.

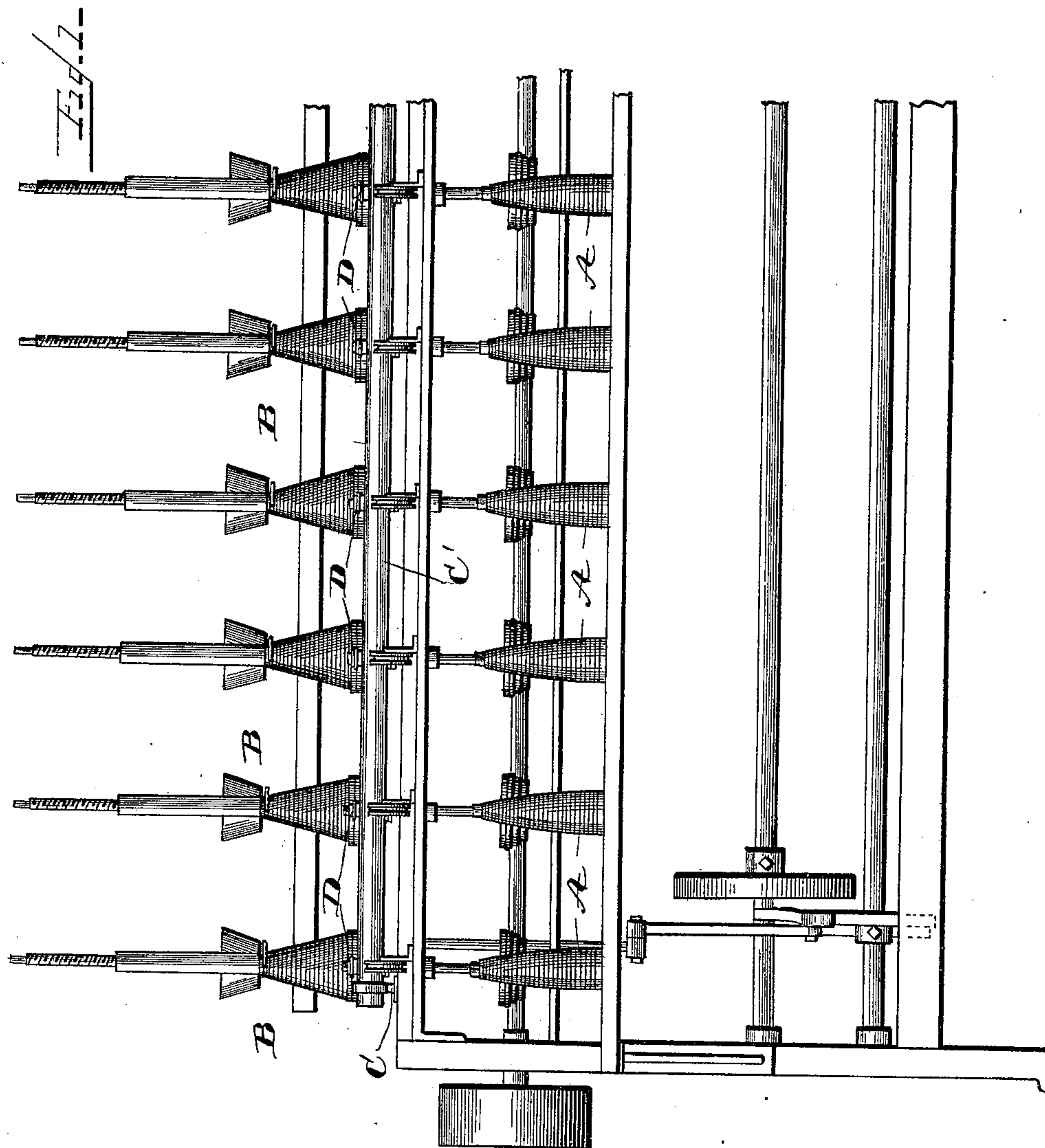
E. E. KILBOURN.

THREAD OILING DEVICE FOR WINDING MACHINES.

(Application filed Apr. 20, 1898.)

(No Model.)

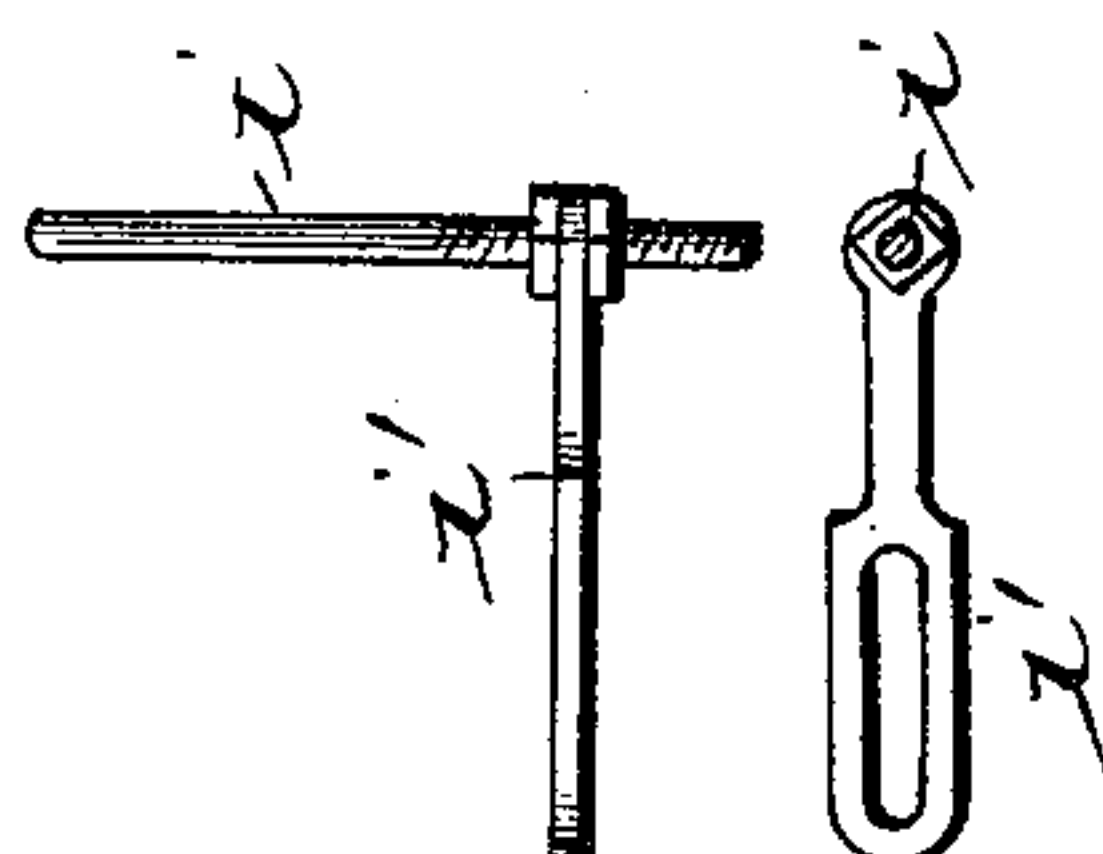
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Witnesses—

G. A. Paulschmitt,
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Fig. 7



INVENTOR—

Edward E. Kilbourn
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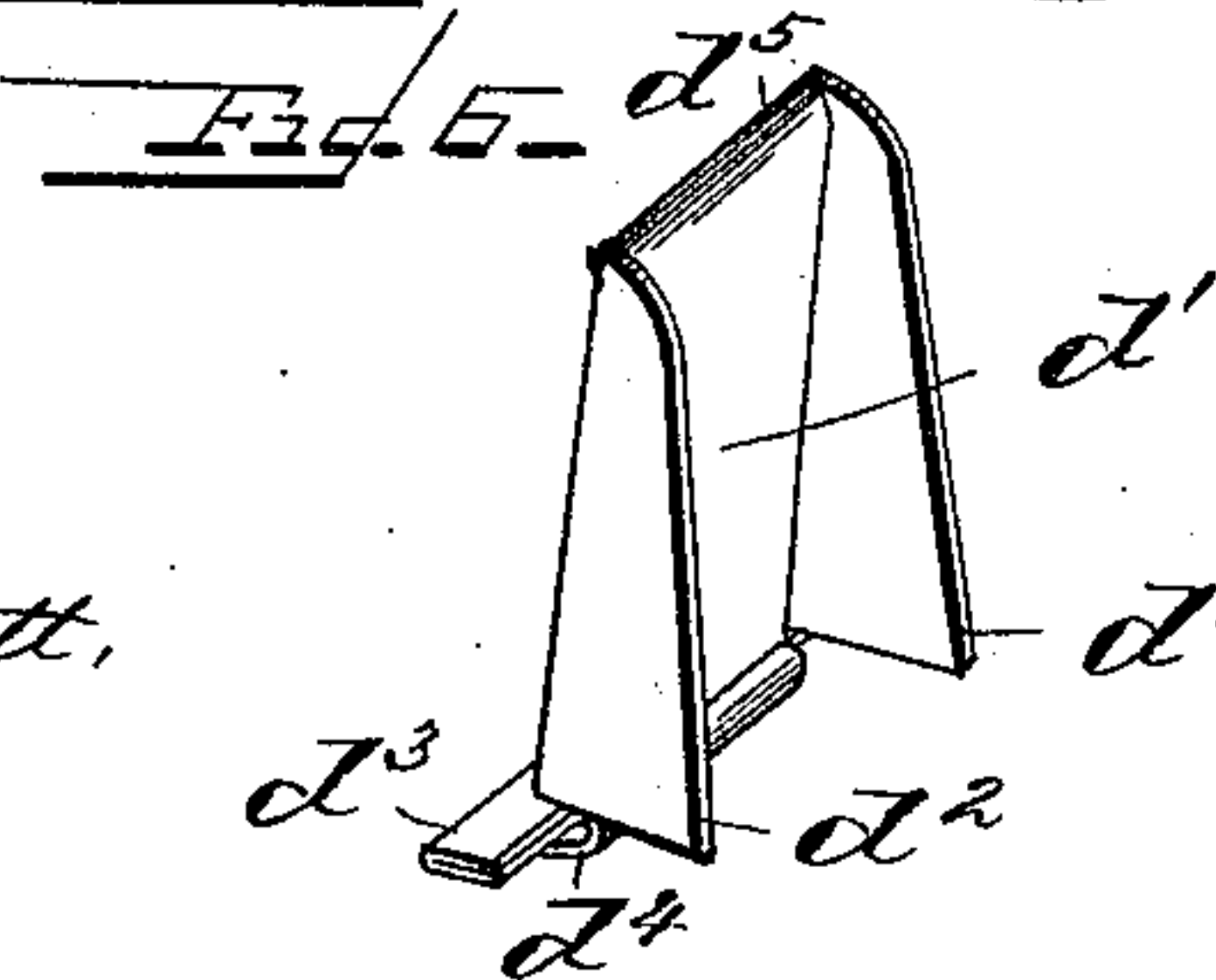
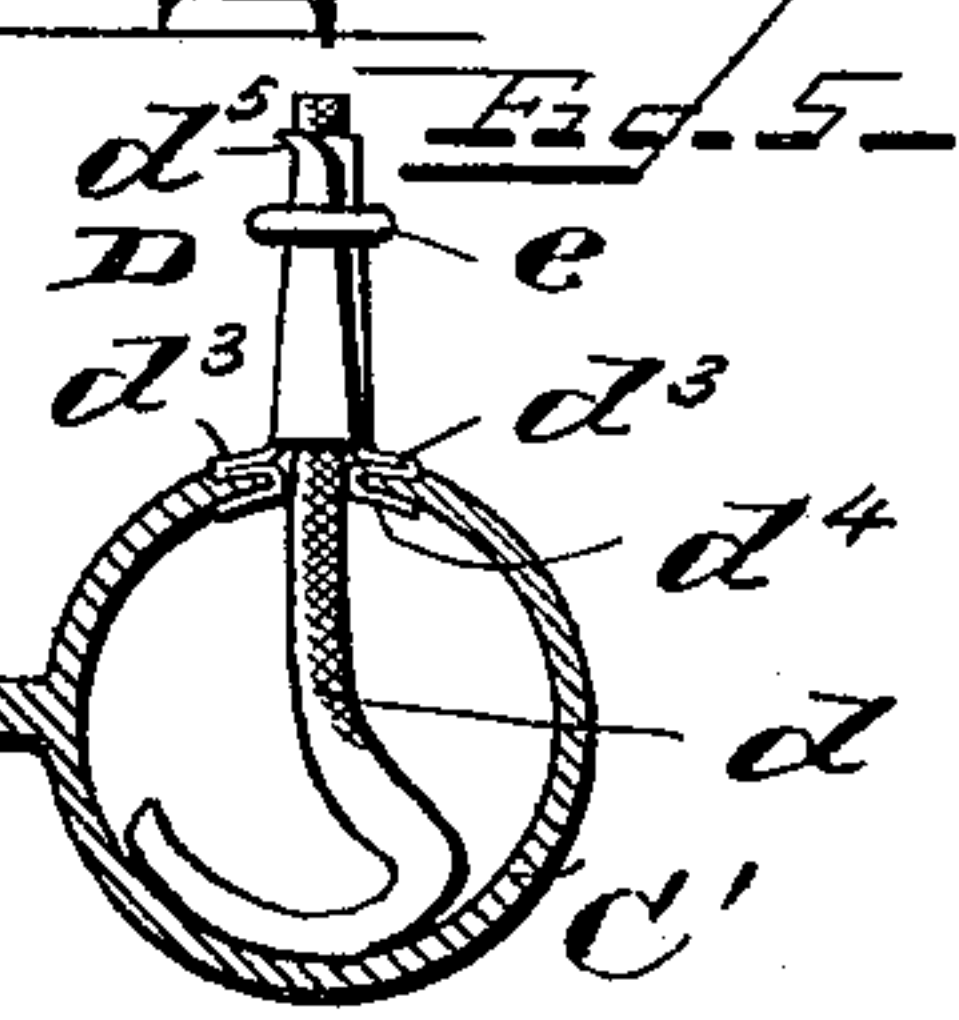
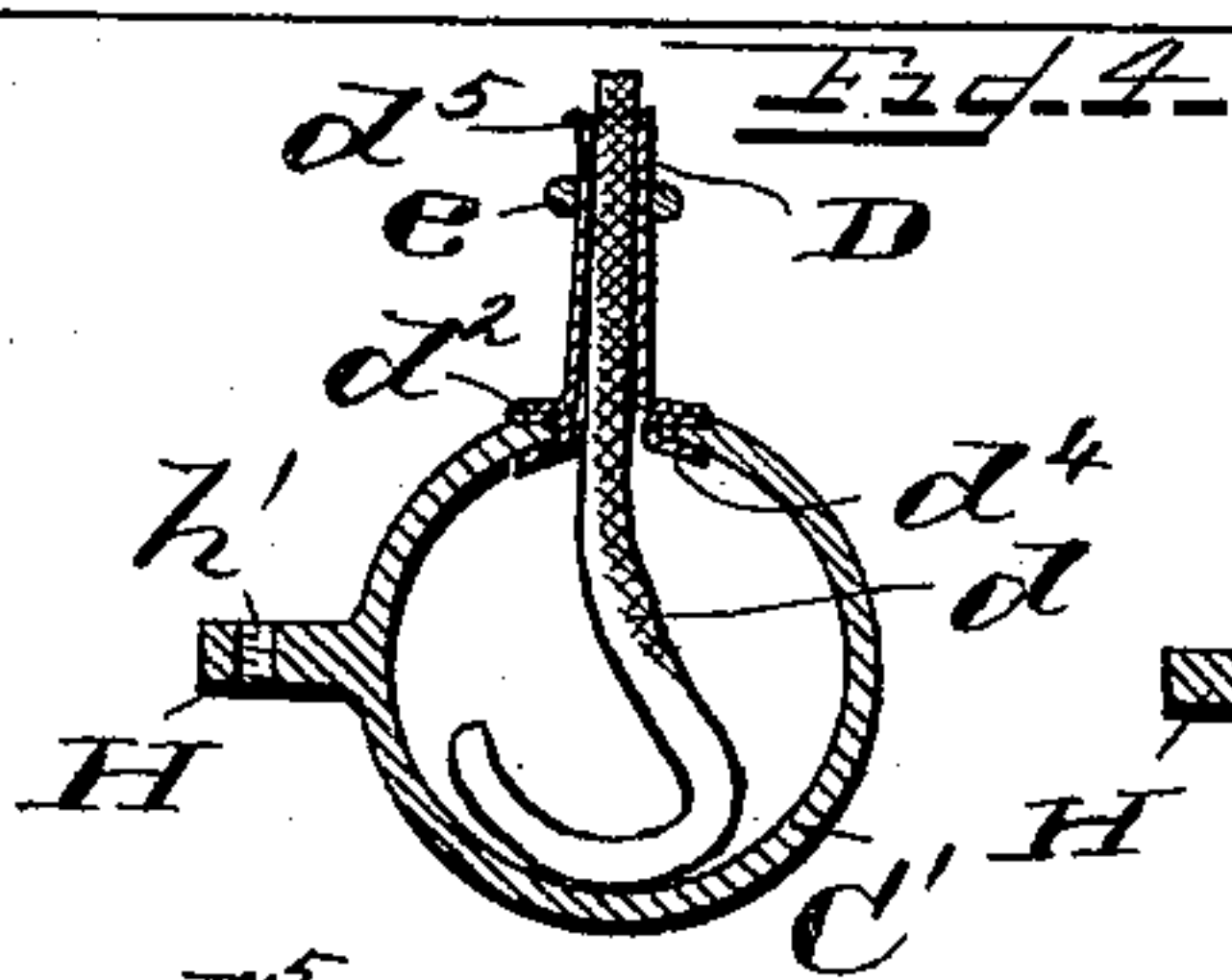
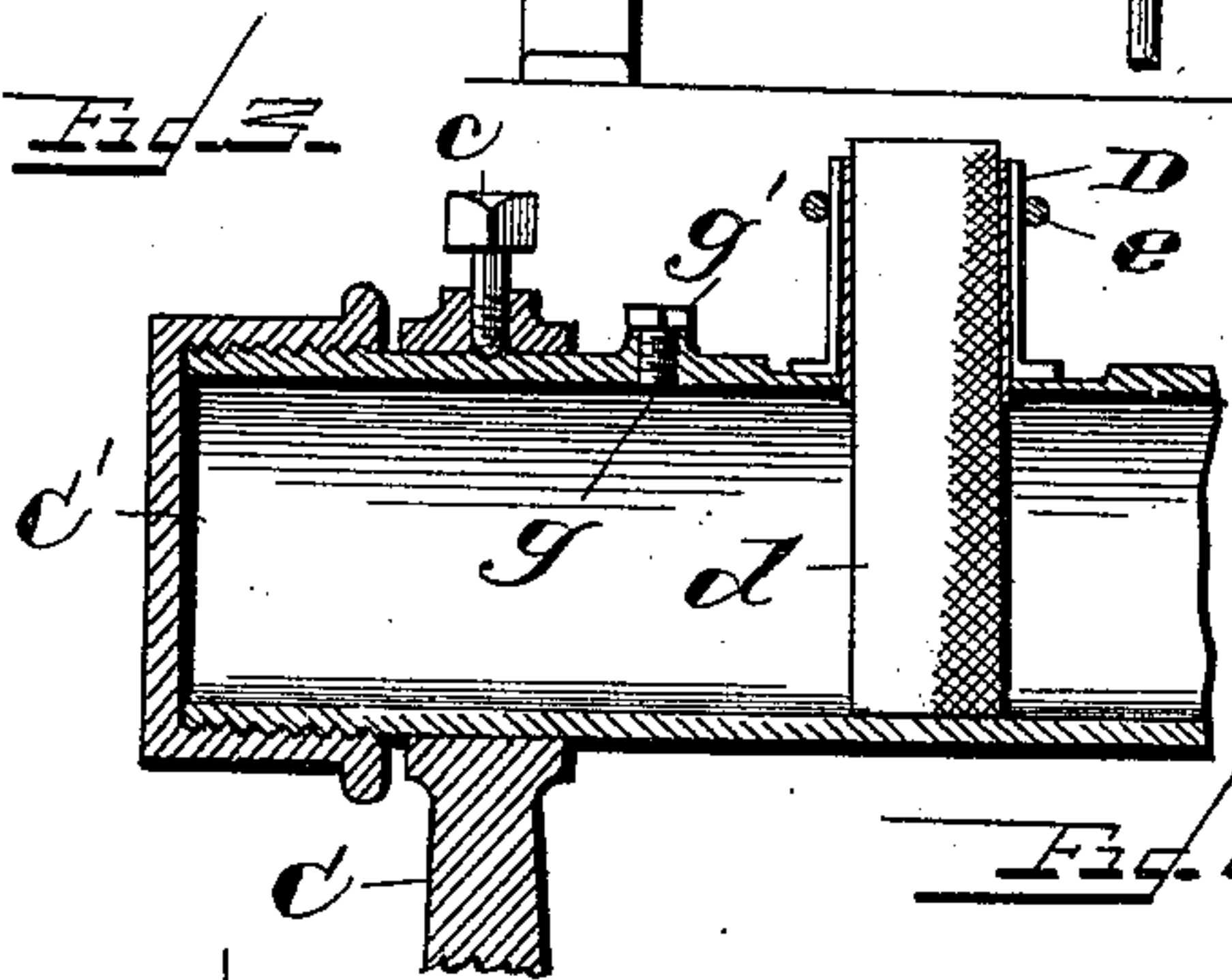
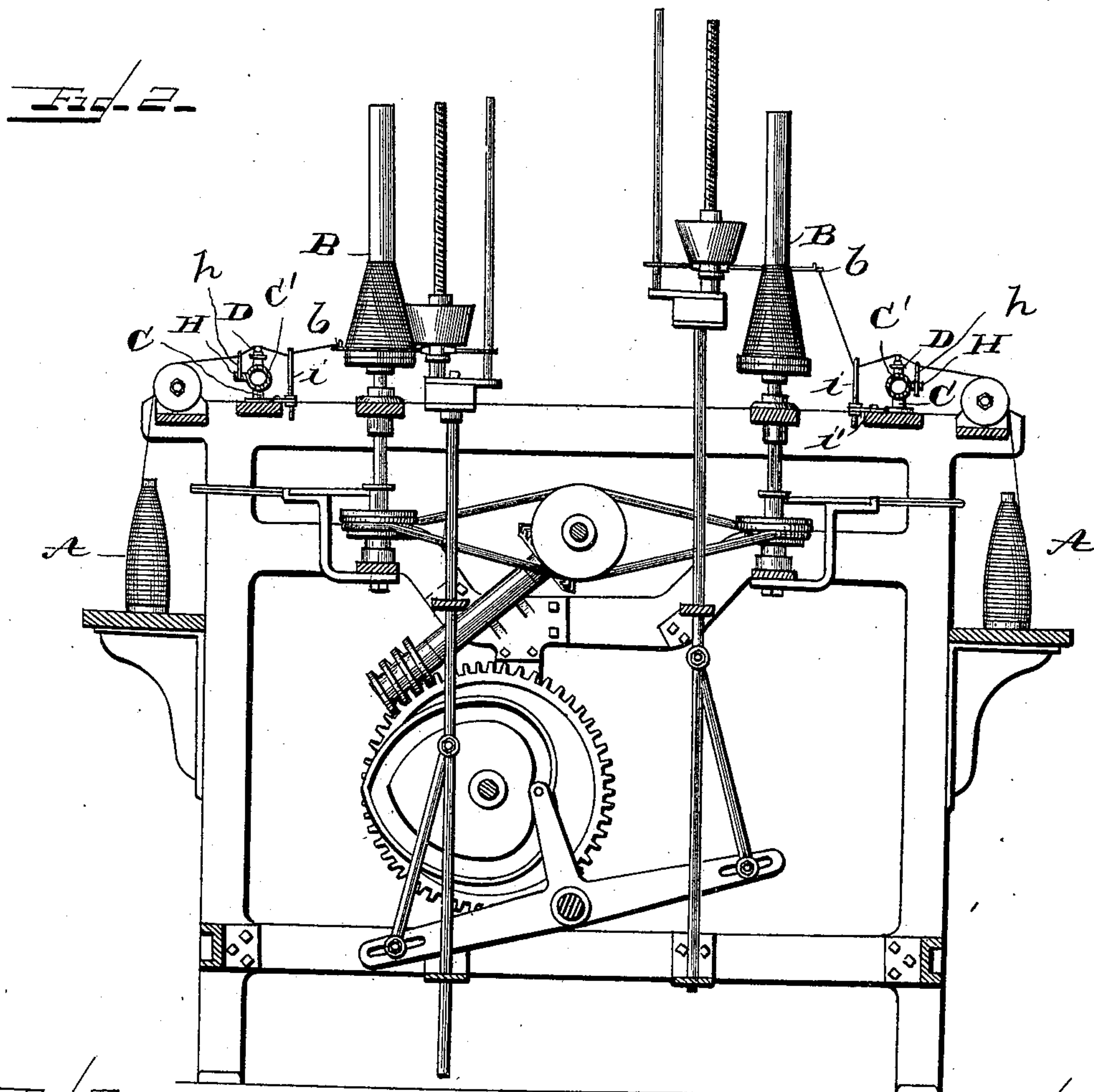
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(No Model.)

2 Sheets—Sheet 2.



Witnesses—

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UNITED STATES PATENT OFFICE.

EDWARD E. KILBOURN, OF NEW BRUNSWICK, NEW JERSEY.

THREAD-OILING DEVICE FOR WINDING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 619,893, dated February 21, 1899.

Application filed April 20, 1898. Serial No. 678,288. (No model.)

To all whom it may concern:

Be it known that I, EDWARD E. KILBOURN, a citizen of the United States, residing at New Brunswick, in the county of Middlesex and State of New Jersey, have invented certain new and useful Improvements in Thread-Oiling Devices for Winding-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention is an improvement in winding-machines or machines for winding yarn from a cop or bobbin onto another bobbin or spool or in an attachment for such machines; and it consists in an improved construction whereby the thread can be oiled in the operation of winding from the cops.

In the accompanying drawings I have illustrated the best form in which I have contemplated embodying my invention, and my said invention is disclosed in the following description and claims.

In the drawings, Figure 1 is a side elevation of a winding-machine having my improvement attached thereto. Fig. 2 is a transverse vertical section. Fig. 3 is a longitudinal section of a portion of an oil-holder. Fig. 4 is a transverse section of the same through one of the wick-tubes. Fig. 5 is a transverse section of the holder, showing the wick tube or holder in full lines. Fig. 6 is a detail of one part of the wick-tubes, and Fig. 7 shows details of one of the thread or yarn guides.

I have here shown my invention as applied to a machine for winding which is the same as those in common use. Only one end of the machine is shown in the drawings, the other part being broken away. This was done to enable the drawings to be made of a size to show the construction most clearly.

The thread passes from the cops A to the bobbins B and is laid upon the latter by the yarn-guide b, which is given the necessary movement to properly build up the yarn upon the bobbin by appropriate mechanism. Between the cop A and the yarn-guide the yarn is oiled as desired by my improved oiler, which I will now proceed to describe. At or near each end of the machine are brackets C, one of which is shown in Figs. 1 and 3. These brackets support the opposite ends of a res-

ervoir C', extending from one end to the other of the machine. I have shown this reservoir as formed from a pipe or tube of ordinary construction; but it may be made of other material and in other forms, if desired. This reservoir is clamped, so as to retain its position unaffected by the jar and vibration incident to the running of the machine and of other machinery in the mill where it is employed. In this instance the tubular reservoir is held in position by the set-screw c through the bracket C. This reservoir is provided opposite each bobbin B with a wick-tube D, in which is placed the wick d.

It is sometimes desirable to vary the amount of oil applied by the wick to the yarn, and I accomplish this by a cheap and simple construction. At the point at which the wick-tube is to be placed the top of the tubular reservoir is made of the proper thickness and is slotted to receive the base of the wick-tube. This wick-tube is made of two parts, each composed, preferably, of sheet metal and substantially of the form shown in Fig. 6. In this view d' is the side of the tube, and d² d² are the end flanges. The lower end of the metal forming the same is bent first outward and then inward to form the upper supporting-flange d³. It is then bent downward and after outward to form the retaining-flange d⁴. The two parts forming a single wick-tube are made substantially alike, except that one is made sufficiently longer than the other to permit the end flanges d² d² of one to pass by those of the other. The upper edge of the side d' is curved outwardly by preference, as shown at d⁵, though this is not essential. After the parts of the wick-tube are put in their place in the reservoir they are engaged and held by the clamp e. The construction of the parts of the wick-tube is such that when placed in position the side walls d' d' incline slightly toward each other. The clasp or clamp is made of the shape of an elongated link or of a wire bent into substantially that form, and by pressing the clamp downward the upper edges of the sides press more firmly upon the wick. By raising and lowering this clamp the operator can regulate the passage of the oil through the wick as desired.

The reservoir is provided at one end with the opening g, fitted with the closing-plug g'.

It will be seen that by removing this plug *g'* the reservoir can be filled with oil and that as all the wicks take their oil from the common reservoir there need be but one filling
5 for all of the oiling devices at one side of the winding-machine.

The thread is guided in its passage over the wick *d* by the guide-eyes *h i*. The reservoir is in this instance provided with an outwardly-
10 extending flange *H*, which is opposite each wick-tube, provided with a screw-threaded opening *h'*, in which the screw-threaded lower end of the guide-eye *h* is inserted. By turning this guide in opposite ways it can be ad-
15 justed to the position desired.

In Fig. 7 I show the preferred construction of guide *i*. This guide has a base *i'*, which is secured to any convenient supporting structure by a screw passing through the slotted
20 base. The inner end of this base is provided with a threaded opening, in which the guide *i* is screwed, thus providing for adjustments in all directions.

It will be understood that this thread-oiler
25 can be applied to any form of winding-machine by such adaptations as are within the knowledge of any skilled mechanic, and that while the yarn-guides here shown are those preferred other forms of such guides may be
30 employed without departing from the spirit of my invention.

This oiler is neat in use and efficient in operation. One filling serves for all the wicks on one side of the winder, while each wick
35 can be regulated so as to produce the result desired on each thread. The construction

also is such that it catches and holds little or no dirt or lint from the thread.

What I claim, and desire to secure by Letters Patent, is—

1. A thread-oiler for winding-machines consisting of a reservoir extending past all of the winding-spindles at that side of the machine, said reservoir being provided with a wick-tube for each spindle, means for independently ad-
45 justing the flow of oil through each wick, substantially as described.

2. In a thread-oiler, an upwardly-tapering wick-tube composed of two parts and a sliding clasp, substantially as described. 50

3. The combination with the elongated reservoir provided with slots for the passage of wicks, of the wick-tubes each composed of two parts movable toward and from each other, said parts being inserted in said slots, and
55 means for forcing them against the wick with more or less pressure, substantially as described.

4. The combination with the elongated reservoir provided with slots for the passage of
60 wicks, of the wick-tubes formed of two parts each having a base engaging one side of the slot and the other engaging the opposite side, and the clasp for adjusting the pressure of the sides of the wick-tube upon the wick, sub-
65 stantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

EDWARD E. KILBOURN.

Witnesses:

ROB. G. MILLER,
NATHAN MARKS.