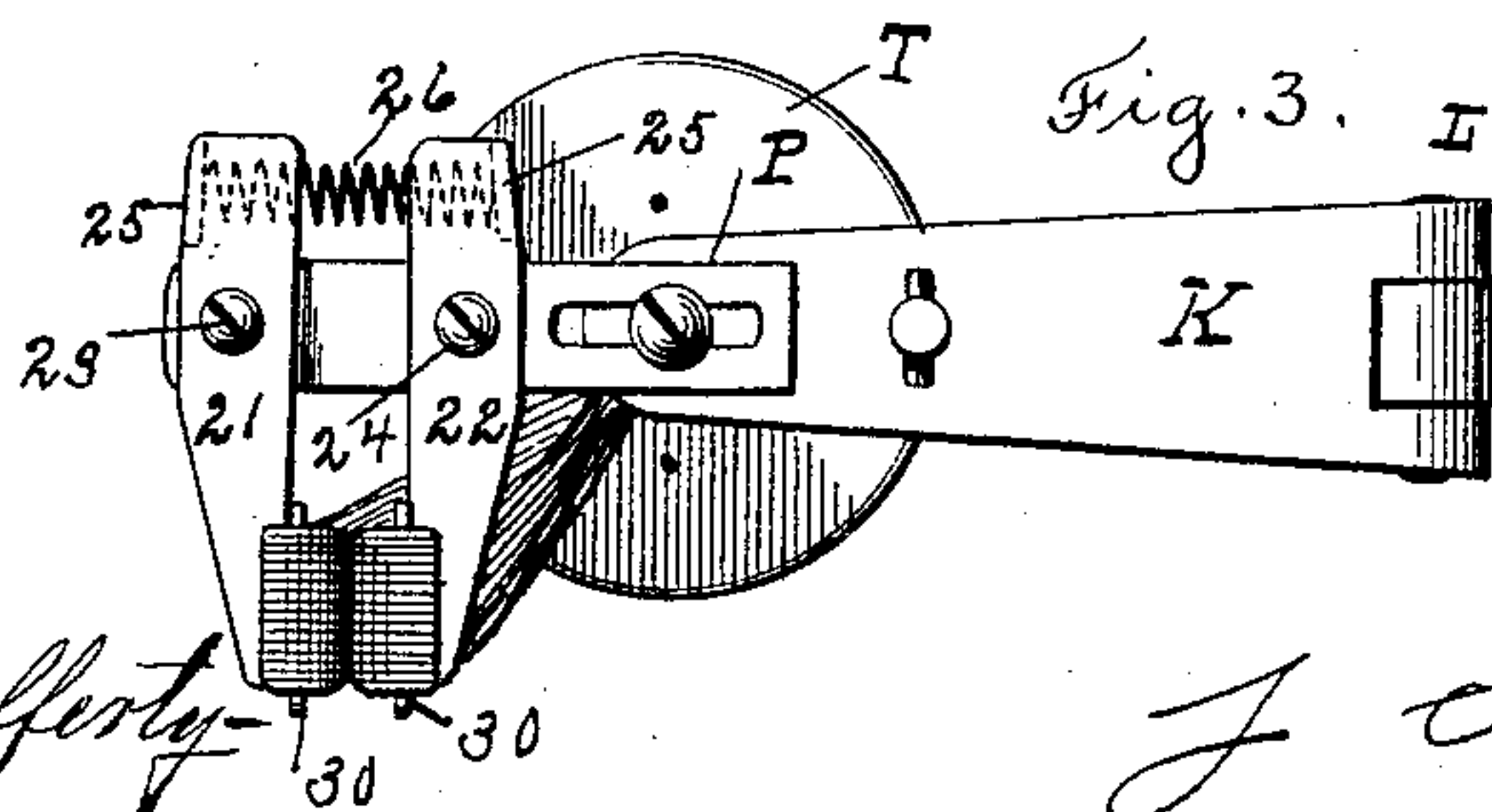
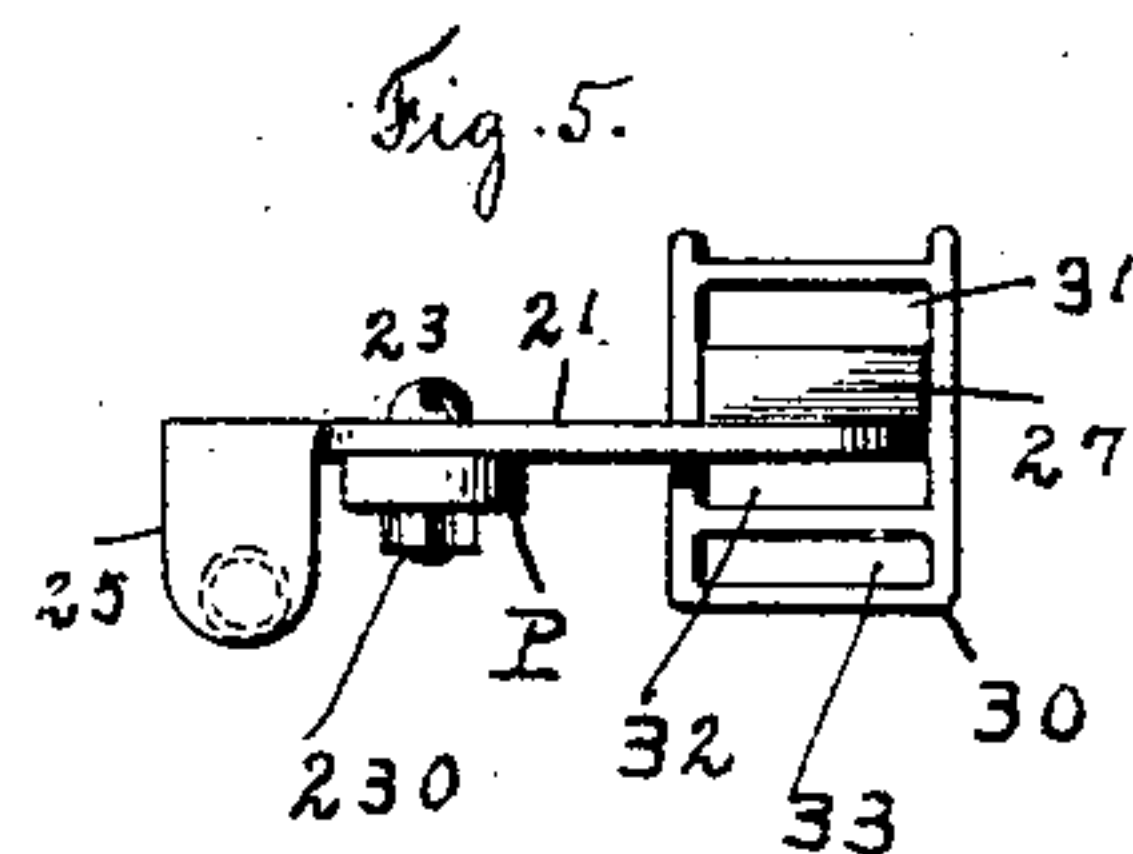
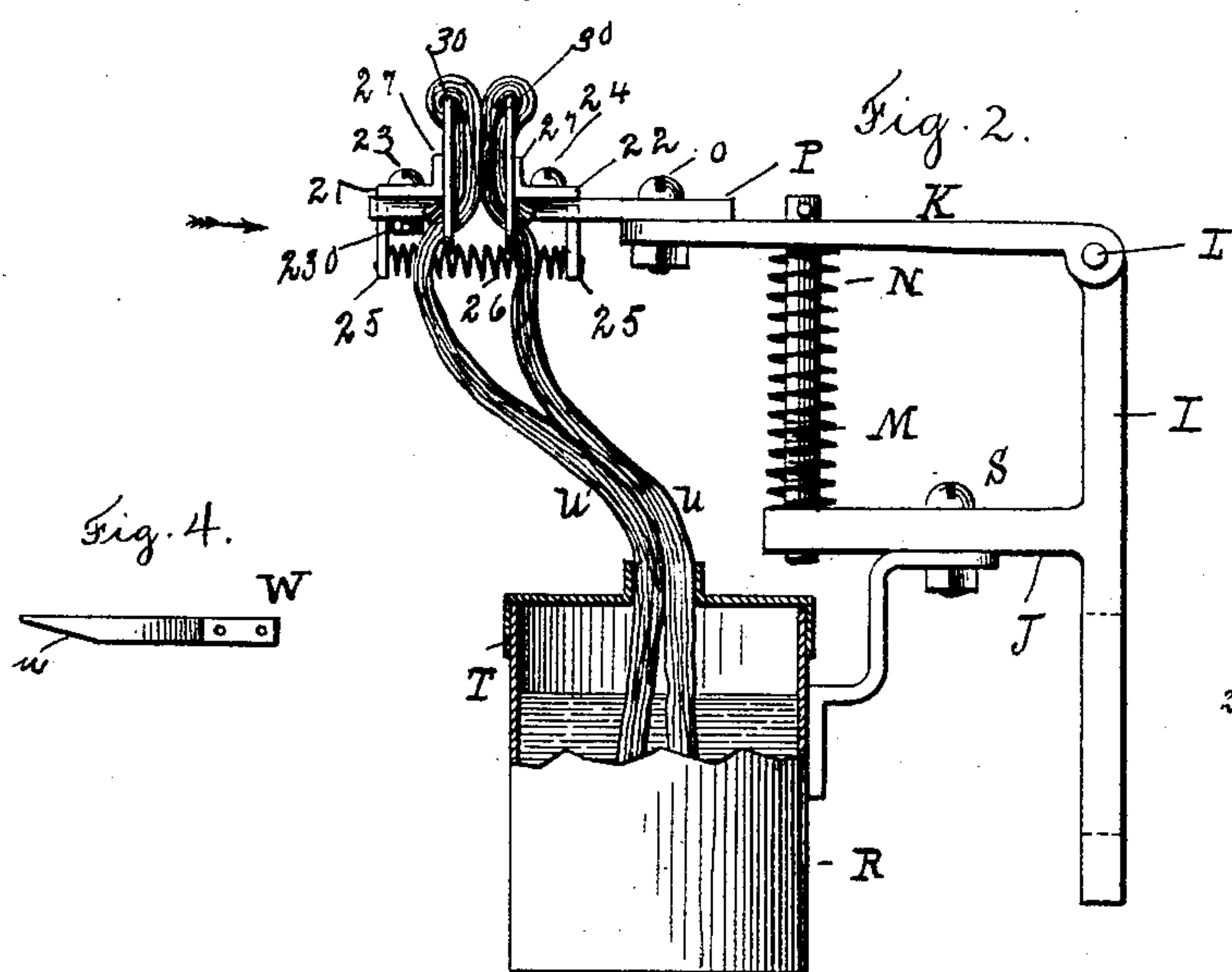
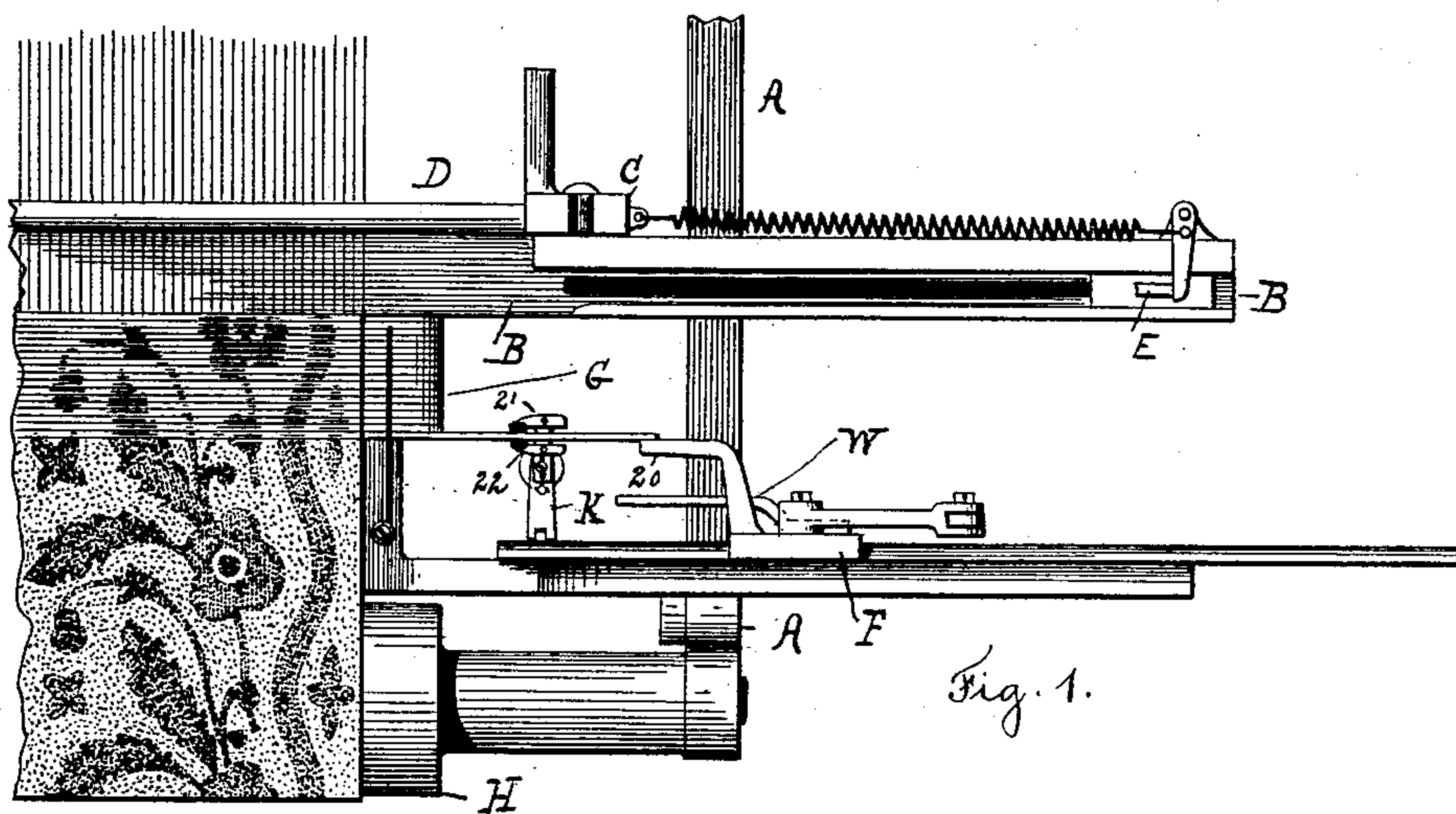


(No Model.)

J. S. GILES.
OILING DEVICE FOR LOOMS.

No. 481,559.

Patented Aug. 30, 1892.



Witnesses

James J. Rafferty - 30
J. O. Woodman

Inventor

J. S. Giles
 By his Attorney
 Louis W. Southgate

UNITED STATES PATENT OFFICE.

JOSEPH S. GILES, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO MATTHEW J. WHITTALL, OF SAME PLACE.

OILING DEVICE FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 481,559, dated August 30, 1892.

Application filed March 14, 1892. Serial No. 424,755. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH S. GILES, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Oiling Devices for Looms, of which the following is a specification.

The aim of this invention is to improve the construction and operation of looms for weaving tufted pile fabrics and similar materials; and to this end the invention consists of the device described and claimed in this specification and illustrated in the accompanying drawings, in which—

Figure 1 is a plan of enough of a loom to illustrate the application of my improvement thereto. Fig. 2 is an elevation, partly in section, on an enlarged scale, of my improved device. Fig. 3 is a plan of the same. Fig. 4 is a side elevation of the cam carried by the carriage, and Fig. 5 is a side view of the wiper-holding device.

This application covers a modification or further carrying out of the device described, shown, and claimed in my companion application, Serial No. 424,754; and the invention relates to a wiping and oiling device for wiping and oiling the wires used in looms for weaving tufted pile fabrics, so that the wires will always be kept clean and will slip easily in and out of the fabric.

In my companion application before referred to I have claimed the use of wicking for the purpose of oiling the wires and I have set forth the advantages of the same at length. In this application I show and claim a peculiar double arrangement, preferably of wicking, that is adapted to wipe the sides of the wires and at the same time, if desired, oil the same; and while my device is intended, preferably, to be used both as an oiling and wiping device, it will be evident that by omitting the oil-supplying device that my improvement can be made to work simply as a wiper.

As I use the term "wires" in this specification I mean to include both the smooth wires or wires having knives, as used in carpet weaving, or any form of wire used in any similar loom or process.

Referring now to the drawings and in detail, A represents the framing of the loom; B, the vibrating lathe; C, the sword; D, the reed, and E the picker-stick. The arrangement and operation of these parts is well understood and it is not thought necessary to describe the same at length in this specification.

F represents the carriage, which is mounted to slide in the usual manner on the frame, and which may be operated by any of the usual mechanisms. The carriage carries at the end thereof the usual hook 20, which is adapted to catch and withdraw in the usual manner the wires G, and any suitable means may be used to insert them again.

H represents the usual take-up roll around which the finished product is carried.

Fastened on the inside of the front framing or at any suitable point is the frame I, which has the projecting arm J. The top of the frame is cut away, so as to form a hinge-pivot, and fitting the same is the bifurcated end of the swinging arm K, which is hinged to the frame I by pin L.

Fastened or tapped into the extending arm J is the screw M, the head of which rests on the top of the arm K, and surrounding the pin or screw M and bearing on arm J and swinging arm K is the spring N, which thus tends to normally keep arm K raised to its highest position as determined by the adjustment of the screw M.

Adjustably fastened to the arm K by screw O is the piece P, which may be slotted, as shown, so as to have considerable adjustment. On the piece P are fastened the two jaws 21 and 22, the jaw 21 being rigidly held or fastened to the piece P by screw 23 and nut 230 in any desired position with said screw as a center and the jaw 21 being loosely pivoted by screw 24, so that the same will easily turn around screw 24 as a pivot. The said jaws 21 and 22 have extending lugs 25, between which is placed the spring 26, which acts as an expansion-spring and tends to force the outer or longer end of the jaw 22 against the jaw 21. The ends of the jaws are bent up, as at 27, and fastened to these bent up portions are the pieces 30. These pieces 30 have the

three holes 31, 32, and 33 formed in the same, as shown in Fig. 5, and suitable wicks U and U' are pulled first through holes 33, then up over the top of the pieces 30, and then through
5 holes 31 and 32, as shown in Fig. 2.

I use the term "wicks," because, as further described, I preferably use the wiping device also as an oiling device; but I wish to be understood as contemplating the applica-
10 tion and use of any material of any desired shape that will act as a wiper for the wires.

The manner in which the wicks are drawn through the pieces 30 will bring a large surface of the two wicks opposed to each other, as shown. The jaws are so placed that as the
15 wires are withdrawn from the finished product they will be pulled between the two wicks and cleaned at every withdrawal and insertion of the same. Thus the wires will
20 be kept from rusting by reason of the moisture from the fabric or atmosphere and will always be kept clean and bright.

This wiping device by itself forms a great improvement in the looms and may be used
25 simply as a wiper; but I prefer to make the device perform the double function of both wiping and oiling the wires. To do this I adapt, substantially, the mechanism of the
30 oiling device shown in my companion application before referred to, and as herein partially described previously.

Adjustably fastened to the projecting arm J by means of screw S is the oil-cup R, having the removable cover T, through which
35 the wicks U and U' are passed, as shown.

Fastened to the carriage and passing under the hook is an arm or cam W, which is adapted to strike on the swing-arm K, and which has the incline *w*, which will act to depress
40 the said arm, so that the wicks will be depressed to clear the hook while the same is passing over the wicks.

The operation is apparent and is as follows: As the loom is operated in the usual manner,
45 the wires will be withdrawn after being caught by the hook and inserted again in the warp, as well understood. As the wires are withdrawn, the same will be pulled between the two faces forming the wiper and the wires
50 will be cleaned, so as always to be kept bright. The cam W will act to depress the wiper, so that the hook can pass the same and can come close up to the fabric, whereby the entire length of the wires except a small portion of
55 the eyes of the same can be drawn through the wiper.

If wicks dipping into the oil-cup are used, the wiper will act also as an oiler and will have the advantages of the device described

and claimed in my companion application before referred to. 60

I wish it distinctly understood that I contemplate using the device simply as a wiper, omitting the means for supplying the oil, and that such use is within the scope of my in-
65 vention.

My device may be used in connection with any kind of wires, whether the same carry knives or not, and in any loom where wires or similar devices are used. 70

The details and arrangements of parts herein shown and described may be greatly varied by a skilled mechanic without departing from the scope of my invention as expressed in the claims. 75

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a loom of the character described, the combination of the wires, means for withdrawing and inserting the same, and two opposed wicks arranged in the path traveled by the wires and between which said wires are moved, substantially as described. 80

2. In a loom of the character described, the combination, with the wires, the hook for catching and withdrawing said wires, and two oppositely-disposed wicks normally arranged in the path traveled by said wires and through which the same are drawn, of means for moving said wicks out of this position, so that the wicks will clear the hook, substantially as described. 85 90

3. In a loom of the character described, the combination, with the wires and means for withdrawing and inserting the same, of the rigid jaw and the pivoted jaw, the spring acting to force the end of the pivoted jaw against the end of the rigid jaw, each jaw holding or having a facing of suitable material, and between which said wires are drawn, substantially as described. 95 100

4. In a loom of the character described, the combination, with the wires and means for withdrawing and inserting the same, of the two opposed plates 30, having holes 31, 32, and 33, the wicks passing through said holes, as described, and so arranged that the wires will be drawn between the said wicks, substantially as described. 105 110

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOSEPH S. GILES.

Witnesses:

LOUIS W. SOUTHGATE,
ALFRED THOMAS.