

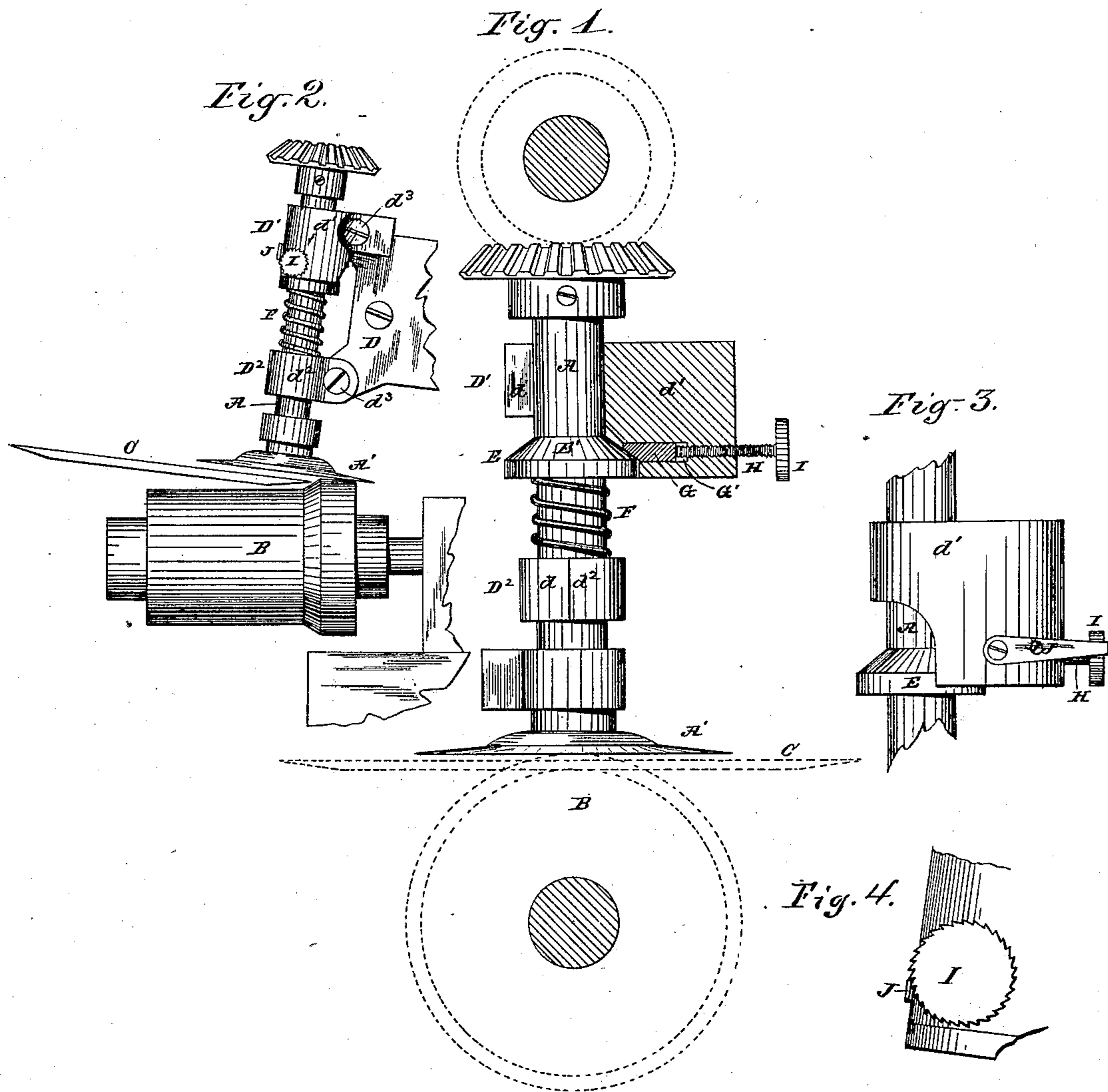
(No Model.)

G. M. LUDLOW.

ADJUSTING DEVICE FOR LEATHER SKIVING MACHINES.

No. 256,844.

Patented Apr. 25, 1882.



WITNESSES
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GEORGE M. LUDLOW, OF CHICAGO, ILLINOIS.

ADJUSTING DEVICE FOR LEATHER-SKIVING MACHINES.

SPECIFICATION forming part of Letters Patent No. 256,844, dated April 25, 1882.

Application filed January 27, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. LUDLOW, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Adjusting Devices for the Rotating Knives of Skiving-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and
10 to the letters of reference marked thereon, which form a part of this specification.

This invention relates to an improvement in the skiving-machine shown in patents granted to C. Amazeen, February 26, 1878, and Octo-
15 ber 28, 1879; and it consists in means, substantially as hereinafter set forth, for more perfectly and conveniently adjusting the position of the cutting-disk with reference to the feed-roller beneath it. In said machine, as
20 shown in the patents referred to, and as heretofore constructed, the vertical longitudinally-movable cutter-shaft is provided with two movable collars arranged between its two bearings, which collars are held upon the shaft by
25 means of set-screws. In adjusting the cutter-shaft vertically these collars are loosened and the shaft is raised or lowered, as the case may be, and the collars are then again secured upon the shaft, so as to bear one against the
30 lower surface of the upper bearing and the other against the upper surface of the lower bearing. In practice it is found to be very difficult to secure a nice adjustment of the cutter by these means, and the device herein set
35 forth and claimed is intended to remedy the difficulty named.

In the drawings, Figure 1 is an elevation of the cutter-shaft and its immediate connections provided with my improvement, viewed from
40 the end of the machine, the same being shown partly in section and with the feed-disk shaft removed. Fig. 2 is an elevation of the cutter-shaft, its immediate support, and contiguous parts, viewed in front elevation. Fig. 3 is an
45 end elevation of parts more immediately concerned in my improvement. Fig. 4 shows the thumb-wheel of the screw notched on its edge, so as to act as a ratchet, in connection with a

spring arranged to bear thereon to prevent the accidental retraction of the screw.

A is the cutter-shaft, and A' is the cutting-disk, secured to the lower end of said shaft.

B is the feed-roll, and C is the feed-disk.

D is the frame in which the cutter-shaft is mounted, D' and D² being the upper and lower
55 bearings of said shaft. It is understood that the frame D is movably secured upon the main frame of the machine, so that the inclination of the cutter to the feed-roll may be varied at pleasure. As my invention relates exclusively
60 to the vertical adjustment of the cutter-shaft, only those parts concerned in this purpose will be further fully described. The bearings D' and D², as shown in said patents and as heretofore constructed in the machine, are both
65 like the lower bearing herein shown—that is to say, they each consist of an arm, d, cast integral with the frame D, and a removable cap, d², held by a screw, d³. In my improvement I
70 have substituted for the upper removable cap mentioned the cap d'. In said cap d' a squared recess, G', is provided, in which a metal block, G, is fitted to work freely, and a screw, H,
75 having a thumb-wheel, I, is arranged to bear against the end of said block, as clearly shown in Fig. 1.

The shaft A is provided with a collar, E, which may be of the same piece with the shaft or fastened thereto by means of a set-screw. Between this collar E and the bearing D² a
80 spiral spring, F, is arranged about the shaft A, operating to lift the shaft A and its cutter A'.

The purpose of the screw H and block G is to force the shaft and cutter downward against
85 the action of said spring F, and to this end the block G is arranged to bear at its inner free or protruding end upon the upper surface of said collar E. This may be done by
90 arranging the block and screw in a vertical or inclined direction; but, as the probably better construction, I have shown said block and screw in a horizontal position, radial to the
95 shaft A, and the collar E and block G beveled on their meeting faces. An inward movement of the screw and block obviously depresses

the collar and cutter-shaft, and by retracting the screw the shaft rises by force of the spring F. By varying the bevel of the collar E any desired degree of delicacy in the adjustment of the cutter may be obtained.

As a means of holding the knife at any required adjustment, the thumb-wheel I is notched upon its periphery, and the spring-detent J is provided to engage said notches.

10 If preferred, the thumb-wheel may have beveled notches, so as to turn beneath the spring in running in the screw, forming with the spring a ratchet and spring-pawl, as shown in Fig. 4, in which case the spring or pawl requires to be lifted only when the screw is retracted.

Obviously the part G, intermediate the adjusting-screw H and the shaft-collar E, may be dispensed with when proper means, as described, are employed to prevent rotation of the screw; but unless said screw be arranged to bear squarely downward at its end upon the shaft or its collar it would be likely to wear, so as to impair its accuracy as a means of adjustment.

25 The invention as here shown may be readily applied to old machines merely by the substitution of the collar E and spring F for the two movable collars heretofore employed, and the further substitution of the cap d' , provided with the screw H and block G, for the plain cap previously used in the same position.

I claim as my invention—

35 1. In combination with the longitudinally-movable rotating cutter-shaft A in the machine described, a spring, F, arranged to raise the shaft, and a screw, H, suitably supported

and arranged to bear downward thereon, substantially as and for the purposes set forth.

2. In a leather-skiving machine, the combination, with the shaft A, provided with a collar, E, and with the shaft-bearings D' D^2 , of the spring F, interposed between the lower bearing and the collar, and an adjusting-screw fitted into a part of the upper bearing and arranged to bear downward upon said collar, 45 substantially as described, and for the purposes set forth.

3. In combination with the longitudinally-movable cutter-shaft A, bearing a fixed collar, E, a part, d' , recessed at G' , and provided with the sliding block G, and adjusting-screw H, arranged and operating substantially as described. 50

4. In combination with the vertically-movable shaft A, provided with the beveled collar E, and with a spring, F, to raise the shaft, a part, d' , provided with a beveled sliding block, G, and screw I, arranged and operating substantially as shown, and for the purposes set forth. 55

5. In the adjusting mechanism described for the cutter-shaft A, the screw H, provided with a notched thumb-wheel, I, combined with the spring J, arranged to engage the notches of said wheel, substantially as described. 60

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

G. M. LUDLOW.

Witnesses:

M. E. DAYTON,
JESSE COX, Jr.