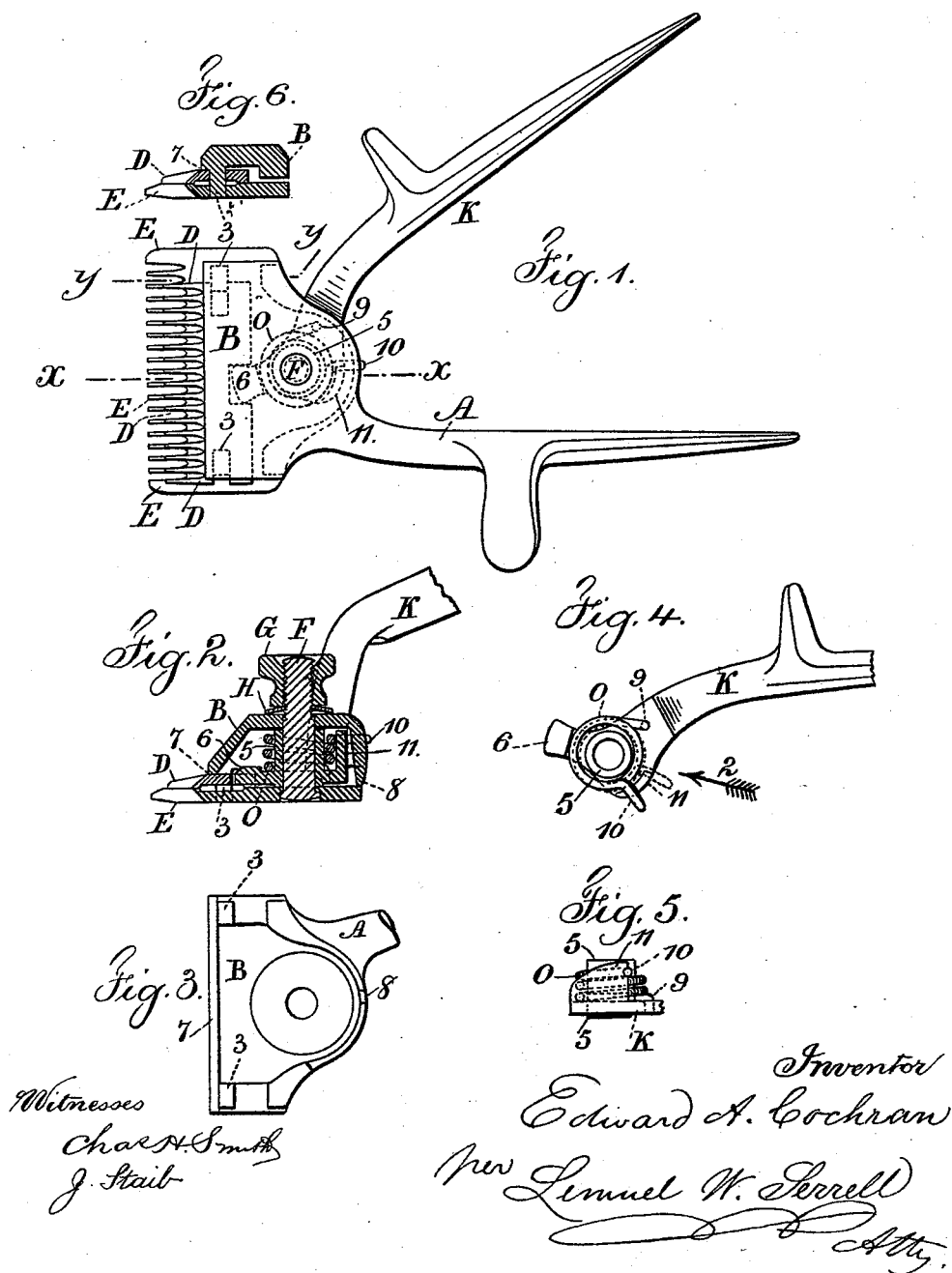


(No Model.)

E. A. COCHRAN.
SHEARING CLIPPER.

No. 526,917.

Patented Oct. 2, 1894.



UNITED STATES PATENT OFFICE.

EDWARD A. COCHRAN, OF BROOKLYN, NEW YORK.

SHEARING-CLIPPERS.

SPECIFICATION forming part of Letters Patent No. 526,917, dated October 2, 1894.

Application filed June 3, 1893. Serial No. 476,429. (No model.)

To all whom it may concern:

Be it known that I, EDWARD A. COCHRAN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Shearing-Clippers, of which the following is a specification.

Clippers have heretofore been constructed in which the bed shear is connected with the fixed handle and there is a removable cap plate acting as a cover to the operative parts and to the reciprocating shear, and a spring has been made use of to open or swing the moving handle, but in clippers of this character it is frequently necessary to separate the parts in order to remove the small pieces of hair that pass into the interior portion of the clipper and for oiling the clipper. In thus separating the parts the spring that acts upon the handle has expanded and hence it has been difficult to re-introduce the spring without the use of tools, and barbers and other persons using such shearing clippers very seldom have the appliances necessary for inserting the spring into its place and straining the same so as to cause such spring to exert the power necessary to swing the moving handle.

In my present invention I construct the parts so that they can be easily separated without releasing the spring, so that when the parts are put together again the spring is under tension necessary for operating the moving handle and the cutting shear.

In the drawings, Figure 1 is a general plan of the cutting shear, with the clamping nut and its washer removed. Fig. 2 is a section at the line *x x*. Fig. 3 is an inverted plan showing the under side of the cap with which the stationary handle is connected. Fig. 4 is a plan representing the spring and a part of the moving handle. Fig. 5 is an elevation of the spring and the hub portion of the moving handle, said parts being viewed in the direction of the arrow 2. Fig. 6 is a section at the line *y y* of Fig. 1.

The fixed handle A and the cap B are preferably made in one, such cap being hollow and having projections or lugs 3 that form guides for the moving shear D and they pass through the transverse slots in such moving shear D and into mortises or notches in the bed

shear E, and the bed shear E is connected by the screw F with the cap B, such screw F having a head within the recessed hole in the bed shear E and passing through a hole in the cap B and terminating with a screw thread for the nut G, and it is advantageous to make use of a spring washer H between the nut G and the top of the cap B. This screw F forms a pivot for the swinging handle K, there being a tubular hub 5 formed with the inner end of the moving handle K and surrounding the pivot pin F, and there is also a projection 6 passing into a notch in the back edge of the vibrating shear D so that such shear is moved by the projection 6 as the handle K is moved toward and from the handle A; and I remark that the edge 7 of the cap B presses upon the vibrating shear D to hold the same in its proper position, and there is a downward projection at 8 upon the rear portion of the hollow cap B, such projection 8 bearing upon the bed shear E, so that the pressure applied to the vibrating shear D is regulated by the nut G and the parts readily assume their proper bearing, one upon the other, in consequence of the projection 8 forming a triangle to the edge 7 which bears upon the top surface of the vibrating shear D.

In order that the instrument may be readily operated by the hand, it is necessary to have a spring that moves the handle K away from the handle A, the movement in the other direction being given by the hand of the user. I apply a spring to the handle K which remains under sufficient strain to act upon the handle, notwithstanding the fact that the handle K may be separated from the rest of the instrument in taking the apparatus apart for cleaning and oiling. With this object in view the spring O is made use of, such spring being preferably helical and having an end 9 that passes into a hole in the handle K, and the other end 10 of the spring O passes into a hole in the back portion of the cap B, and there is a projection 11 upon the handle K which is in such a position that such projection keeps the spring O under a constant tension; that is to say, when the instrument is manufactured and being put together the helical spring O is placed around the tubular hub 5 with the end 9 in the hole in the handle K, and then the free end 10 of such spring is

pressed until it passes beyond the edge of the projection 11 and hooks against the same, and the end of the wire composing the spring O extends beyond such projection 11 sufficiently far for the end of the wire to pass into the hole in the back part of the cap B. For this reason the end 10 of the spring has to be inserted into the hole in the rear of the cap when the parts are being put together and before the pivot screw F is inserted into place, the handle K being at its farthest distance from the handle A, and hence the pivot pin F can be easily inserted by moving such handle K sufficiently to make the tubular hub thereof coincide with the holes in the bed shear E and cap B respectively, after which the pivot pin F is inserted and the parts held together by the nut G, and when the apparatus has to be taken apart for cleaning and oiling it is only necessary to take out the pivot pin F which allows the bed shear E and vibrating shear D to be lifted off and then the handle K can be separated from the cap B without the spring O being liberated, but such spring will be constantly under strain against the projection 11, as indicated in Fig. 5, and the apparatus can therefore be taken apart and cleaned and put together again without the use of any tools or appliances, and such cleaning can be performed by any person of ordinary intelligence. It will be seen that the side of the hole at 9, and the projection 11, form bearings against which the spring rests and the tension is maintained thereby even when the parts have been separated for cleaning.

In the present improvement the parts are much cheaper to manufacture and easier to put together than those clippers in which the stud for the handle is screwed into place and the spring and moving handle secured by the screw stud, and by my improvement an adjusting screw to the spring for applying tension is dispensed with.

I claim as my invention—

1. The combination with the bed and vibrating shear, of a separate hollow cap and a handle integral therewith, a moving handle and its pivot between the cap and bed shear, a screw pivot pin for connecting the parts, a spring to act upon the moving handle and bearings for the two ends of the spring for holding the spring under tension when the movable handle is separated from the cap, substantially as set forth.

2. A hollow cap, an integral handle and the bed and vibrating shears, in combination with a pivot pin and a movable handle having a tubular hub around the pivot, a coiled spring around the hub, one end of which is connected with the handle, and a projection on the moving handle against which the other end of the spring bears when the handle is separated from the cap, there being a hole in the cap for receiving the projecting end of the spring when the parts are put together, substantially as set forth.

Signed by me this 31st day of May, 1893.

E. A. COCHRAN.

Witnesses:

GEO. T. PINCKNEY,
A. M. OLIVER.