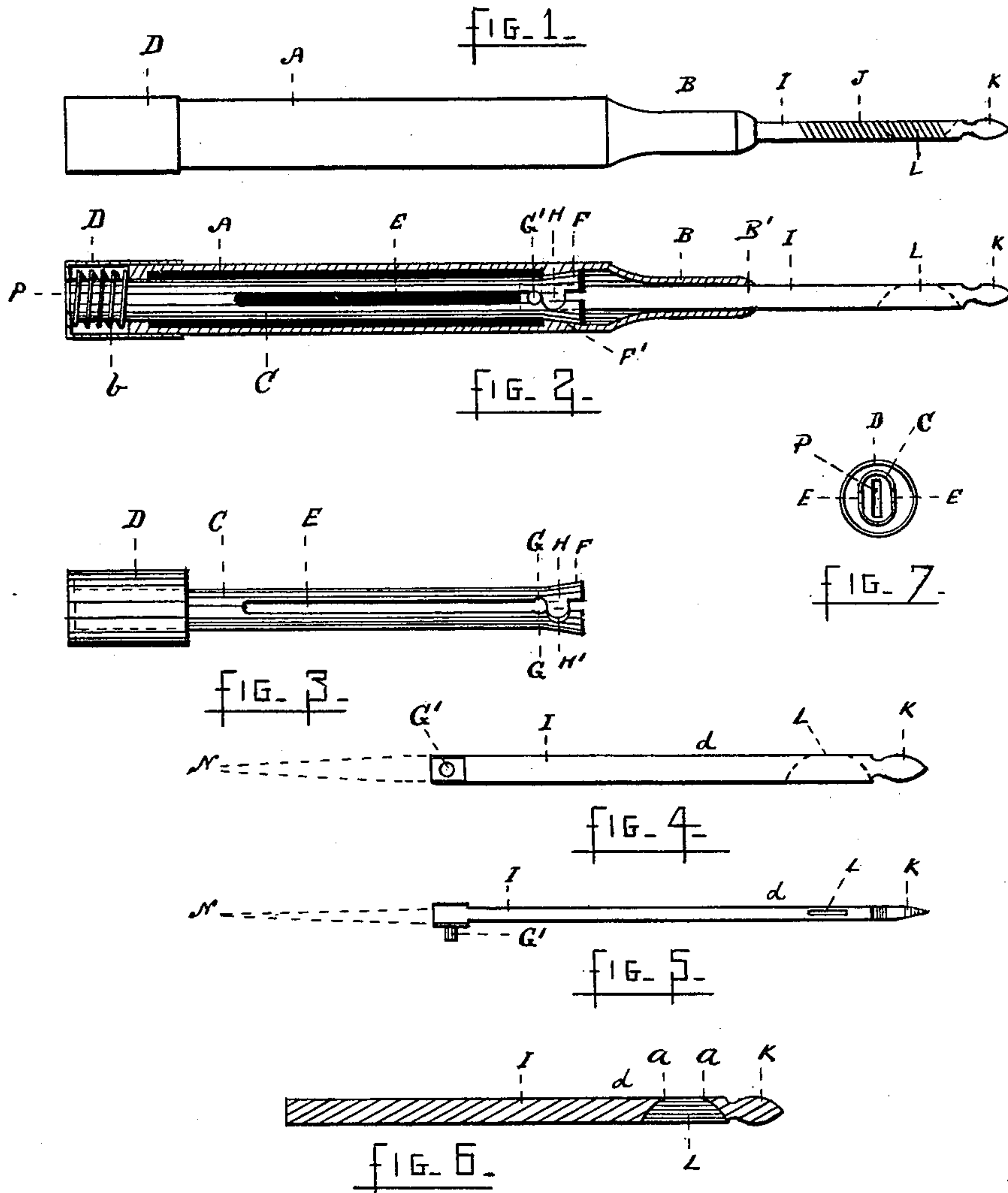


(No Model.)

G. H. COATES.
FINGER NAIL CUTTER.

No. 350,720.

Patented Oct. 12, 1886.



WITNESSES.

H. M. Fowler
B. M. McBrohan

INVENTOR.

George H. Coates
By Rufus B. Fowler,
Attorney.

UNITED STATES PATENT OFFICE.

GEORGE H. COATES, OF WORCESTER, MASSACHUSETTS.

FINGER-NAIL CUTTER.

SPECIFICATION forming part of Letters Patent No. 350,720, dated October 12, 1886.

Application filed June 4, 1884. Renewed June 3, 1886. Serial No. 204,104. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. COATES, 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 Finger-Nail Cutters, of which the following is a full, clear, and exact description, illustrated by the accompanying drawings, upon an enlarged scale, in which—

Figure 1 is a view of my improved nail-cutter. Fig. 2 is a longitudinal sectional view of the inclosing-sheath or handle, showing the interior clamping-tube. Fig. 3 is a view of the clamping-tube. Figs. 4 and 5 show side and top views of the cutter detached from the handle. Fig. 6 is a sectional view of the cutter, and Fig. 7 is an end view of the clamping-tube shown in side view in Fig. 3.

Similar letters refer to like parts in the several views.

My invention relates to the nail-cutter itself, and also to the inclosing handle or case, and to a clamping device for holding the cutter in proper position.

A is the handle or case, consisting of a shell with its diameter contracted at one end, as at B. In the shell A is a sliding tube, C, with a cap, D, attached to one end, which forms a ferrule inclosing the end of the shell A. The opposite end of the tube C is made slightly flaring for a short distance, as shown at F, fitting the section F' in the shell having a corresponding taper or incline. The tube C is split for the greater portion of its length, forming a slot, E, which is closed near the open end of the tube by a lug, H, entering a corresponding opening, H', and forming a bar extending across the slot E. A spring, *b*, on the tube C, inclosed in the cap D and acting against the end of the shell or case A, serves to draw the flaring end F of the tube into the incline F', thereby bringing the divided halves of the tube together and contracting the slot E. By sliding the tube C into the shell A and compressing the spring *b* the flaring end F is carried below the incline or tapered section F', the elasticity of the tube C causing it to assume its normal position, opening the slot E. The cutter is formed in a sliding blade, I, inclosed in the shell A, with one end entering the split tube C. Projecting from one side of the sliding blade I is a pin, G', which enters the slot

E on one side of the tube, and is clamped by the edges of the slot when the halves of the tube C are brought together. When the sliding blade I is drawn out of the handle, as shown in Figs. 1 and 2, the pin G' is brought against the bar H, preventing it from being drawn out of the handle. The slot E is also slightly enlarged next the bar H at G G, Fig. 3, so as to partially inclose the pin G', and prevent the blade I from being pushed in until released by the opening of the slot. By pressing on the cap D and sliding the tube C downward, allowing the slot E to open, the blade I can be pushed in or allowed to slide in by its own gravity by holding that end of the handle upward. As soon as the pressure upon the cap D is removed, the tension of the spring *b*, acting on the tube C, causes the slot E to be again contracted, holding the pin G' and blade I in any desired position along the length of the slot E. The cutter is formed in the blade by sawing through the blade from edge to edge with a circular saw, forming a mortise with its ends curved, as formed by the periphery of the saw, said ends making an acute angle with the edge *d* of the blade, producing cutting-edges at *a a*, and thus leaving the sides of the blade free to receive the teeth of a file, J, Fig. 1.

I am aware that finger-nail cutters have been made by forming a mortise in a blade whose ends made acute angles with the sides of the blade. Such a cutter was shown in the Letters Patent No. 205,088; but the slot was cut through from side to side of the blade, forming a mortise on the two flat sides of the blade, which prevent their being employed to receive the file-teeth. In the cutter referred to the end walls of the slot are beveled and sharpened to form cutting-edges, a method which is permitted when the slot is formed from side to side of a thin blade; but in my present invention the slot is formed from edge to edge of a blade, which must be of sufficient width to allow a file to be formed on its side, and as the angles at *a a*, between the edge *d* and end walls of the slot, must be very acute in order to secure sharp cutting-edges, the mortise on the opposite edge of the blade would be too long to be practicable were the end walls of the slot beveled, as described in the patent above referred to. The cutting-edges may be easily sharpened by grinding the

plane surface of the edge *d*. The width of the opening *L* should be suited to the depth of cut desired, as when one of the cutting-edges *a* are used in paring the nail the opposite cutting-edge serves as a gage, determining the depth of the cut as the curved outline of the nail enters the opening, and, resting against the two cutting-edges *a a*, it is evident that a shaving can only be removed by pressing the nail against one of the cutting-edges equal to the amount of the nail reaching below the line of the side *d*. By this form of a cutter I am able to gage the maximum width of the paring cut from the nail, and also to form a continuous curved line on the end of the nail when cut. The double cutting-edges permit the nail to be cut from each side toward the center without changing the cutter, one cutting-edge being drawn against the nail from one side to the center and the opposite edge pushed against the nail from the opposite side to the center. The outer end of the blade *I* terminates in a point, *K*, for cleaning the nails, and upon one side of the blade *I* cut a file, *J*. If desired, the blade *I* may have attached to its inner end a button-hook, tooth-pick, lead or crayon holding tube, or similar article. In Figs. 4 and 5 the broken lines *N* show a tooth-pick so formed at the end of the sliding blade *I*. In the end or head of the cap *D*, I form a slot, *P*, through which the article so formed on the end of the sliding blade may pass beyond the handle, both utensils being inclosed when the pin *G* is held in the slot *E* midway between the ends. The interior end of the blade *I* is made to fit the tube *C*, so the blade, when withdrawn, as shown in Figs. 1 and 2, will be held by the tube *C*, and also at *B'* by the shell *A*, affording a firm support. A shoulder may be formed on the interior surface of the tube, to act as a stop against a similar shoulder on the blade, in order to prevent the blade from being drawn out; but I consider the use of the pin *G'* and bar *H* preferable, as the pin, entering the enlarged portion of the slot *E* at *G*, rigidly holds the blade from sliding into the handle.

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

1. The finger-nail cutter consisting of a metallic bar or blade having a slit or mortise extending through the bar, with the end walls of the slit or mortise forming an acute angle with one side of the bar or blade, so as to form cutting-edges, said end walls being curved for the

purpose of forming sharp cutting-edges on one side and reducing the length of the mortise on the other side of the blade, as and for the purpose set forth.

2. The combination, with a hollow shell or case forming a handle, of a metallic bar or blade sliding therein and having a mortise or slit extending through said bar, one or both ends of said slot making an acute angle with one side of said bar or blade and forming a cutting-edge, said ends of the slit being curved, as and for the purpose set forth.

3. The finger-nail cutter consisting of a blade having file-teeth formed upon its flat sides, and having a slit or mortise extending through said blade from one plane side or edge to the other, the end walls being curved, as described, and forming acute angles with one of the plane surfaces of the blade, as and for the purpose set forth.

4. The combination, with a shell or case having on its interior surface an incline or tapering section, of a split elastic tube sliding in said shell or case, with its split end flaring to fit the tapering section of the shell, a spring acting on the sliding tube to draw its flaring end against the inclined surface of the shell, thereby contracting the diameter of the tube, and a sliding bar or blade carrying a nail-cutter, as and for the purpose set forth.

5. The combination, with a shell or case having an interior incline or tapered section, of a sliding split tube having an exterior incline or tapered section fitting the tapered section in the shell, and having a slot, *E*, and a lug or bar, *H*, extending across said slot, and a sliding blade, *I*, carrying a nail-cutter, and having a pin, *G'*, entering the slot *E*, as and for the purpose set forth.

6. The combination, with a split elastic tube having a slot, *E*, with a circular enlargement, *G*, of a sliding blade, *I*, pin *G'*, entering the slot *E*, and means for compressing the split elastic tube and contracting the slot *E* upon the pin *G'*, as and for the purpose set forth.

7. The combination, with the shell *A*, sliding split elastic tube *C*, and blade *I*, held in the tube *C*, substantially as described, of the cap *D*, having slot *P*, to allow the end of the blade to pass through the cap, as and for the purpose set forth.

GEORGE H. COATES.

Witnesses:

RUFUS B. FOWLER,
GEO. E. SMITH.