(No Model.)

F. B. HALL.

STAMP CANCELER.

No. 535,899. Patented Mar. 19, 1895.

Fig. 1.

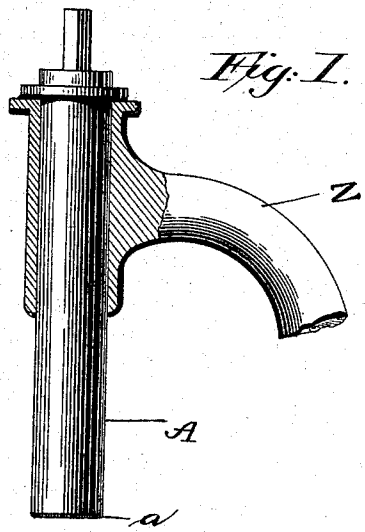


Fig. 2.

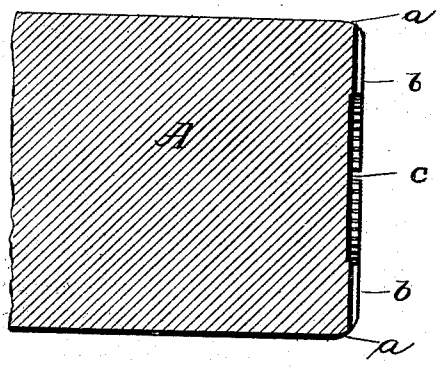
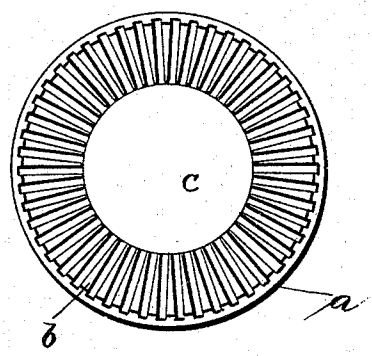


Fig. 3.



Witnesses:
L. C. Hills.
F. B. Keefer.

Inventor:
Francis B. Hall
by Marcellus Bailey
his Atty.

UNITED STATES PATENT OFFICE.

FRANCIS B. HALL, OF PLATTSBURG, NEW YORK.

STAMP-CANCELER.

SPECIFICATION forming part of Letters Patent No. 535,899, dated March 19, 1895.

Application filed January 18, 1895. Serial No. 535,394. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS B. HALL, of Plattsburg, in the county of Clinton and State of New York, have invented a new and useful Improvement in Stamp-Cancelers, of which the following is a specification.

My invention has relation to stamp cancelers in which the canceling tool has an axial movement of rotation for the purpose of obliterating or canceling the stamp or other imprint of like tenor; and it resides in the hereinafter described construction and configuration of the acting face of the tool with a view to obtaining very perfect and efficient abrading action while at the same time rendering it practically impossible for the tool to cut, or be forced through or beyond the thickness of, the paper to which it is applied.

In the accompanying drawings, forming a part of this specification, to which I shall now refer for a better understanding of my invention, Figure 1 is a sectional elevation representing the tool (enlarged) and the stock in which the same is mounted so as to be capable of both lengthwise and rotary movement therein. Fig. 2 is a longitudinal axial section of the lower part of the tool on a greatly exaggerated scale. Fig. 3 is a plan of the acting face of the tool upon a like scale.

The tool is to be mounted in a suitable stock Z in which it can rotate as well as move longitudinally. The longitudinal movement is for the purpose of pressing it upon the surface of the stamp or other thing to be canceled, and the rotary movement is for the purpose of causing its acting face to abrade that surface. Means for this purpose are well known, and require no further description, inasmuch as my invention does not concern them, but is directed to the construction and configuration of the acting face of the tool.

The tool itself is a cylindrical steel stem A, having an intensely hardened base or acting end. The flat face of this end has the conformation indicated at *a b* and *c*. The parts *b* are cog teeth separated from one another by shallow radial grooves and arranged in a ring or circle. The radial grooves are of the same width throughout, and consequently the cogs have a wedge or triangular shape, as shown in the plan view Fig. 3. This ring of abrading cog teeth is surrounded by an annular scroll or rounded smooth surfaced edge *a* and the ring of cogs itself surrounds a smooth circular indented surface *c*. The parts *a c* determine and limit the extent to which the abrading face *b* can possibly enter the stamp which it acts on, and the depth of central recess *c* is regulated accordingly. The outer ends of the cogs *b* gradually blend or merge into the outer rounded edge *a* so that there is no abrupt shoulder to the outer ends of the teeth, while a smooth rounded surface (which itself has no abrupt angle) is provided around the cogs and prevents any tearing or cutting at that point. The shape of the cogs moreover is such—they having flat faces with sides at right angles to the faces—that as the cogs wear their abrading edges are maintained in their original state of efficiency.

A tool thus made will not cut or tear. It has abrading action only, and that action is limited practically to the surface of the stamp or other imprint acted on. It is difficult in a drawing to exhibit the real appearance of the tool itself owing to the very minute dimensions which in practice are given to the parts *a b c*. These dimensions of course may vary and I do not wish to be understood as restricting myself to any precise dimensions which I may state; but for the information of those interested, I would say that in the form of tool which I now prefer—the stem A being made of stub steel of about five-sixteenths of an inch in diameter—the central recess *c* is about one three-hundredths of an inch deep. The cogs *b* are about one one-hundredth of an inch wide at their outer ends and the grooves which separate these cogs are about one one-hundredth of an inch wide, and about half the depth—more or less—of the central recess *c*.

Having described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

The canceling tool having an acting face

composed of a ring of triangular shaped cogs *b*, separated from one another by shallow radial grooves of equal width throughout, a central smooth faced circular depression *c* of a depth to limit the penetration of the abrading cogs to or not beyond the thickness of the paper acted on, and the external annular beveled or rounded edge *a* surrounding the cogs, as and for the purposes hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 18th day of January, 1895.

FRANCIS B. HALL.

Witnesses:
F. B. KEEFER,
NATHAN H. ROBBINS.