2 Sheets—Sheet 1.

W. BOWN.

Horse-Clipper.

No. 210,909. Patented Dec. 17, 1878.

Fig. 4.

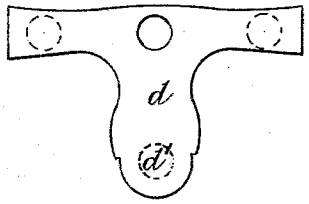


Fig. 5.

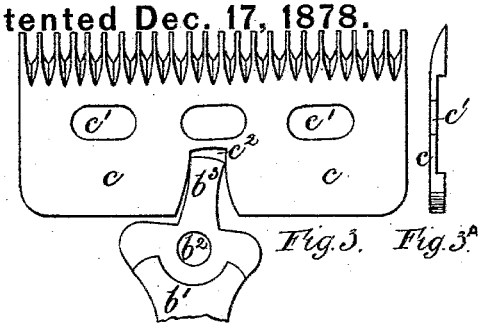


Fig. 3.

Fig. 3ª

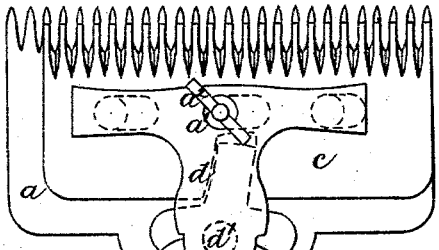
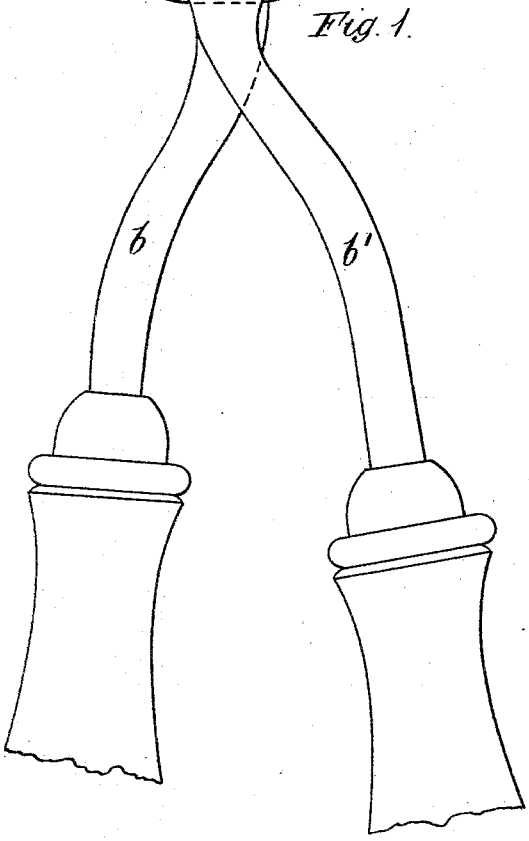


Fig. 1.



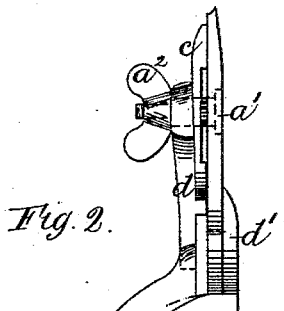
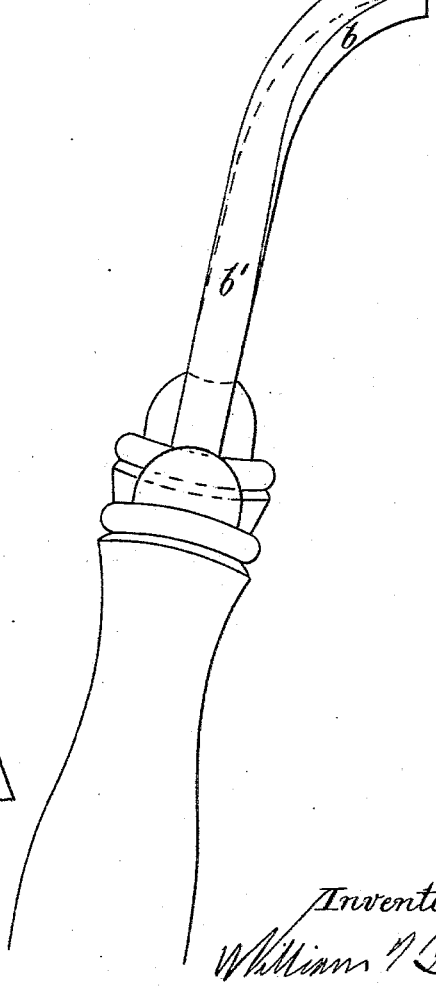


Fig. 2.



Witnesses.
Thos. Sanders.
W. B. Gale.

Inventor.
William Bown

2 Sheets—Sheet 2.

W. BOWN.

Horse-Clipper.

No. 210,909. Patented Dec. 17, 1878.

Fig. 7.

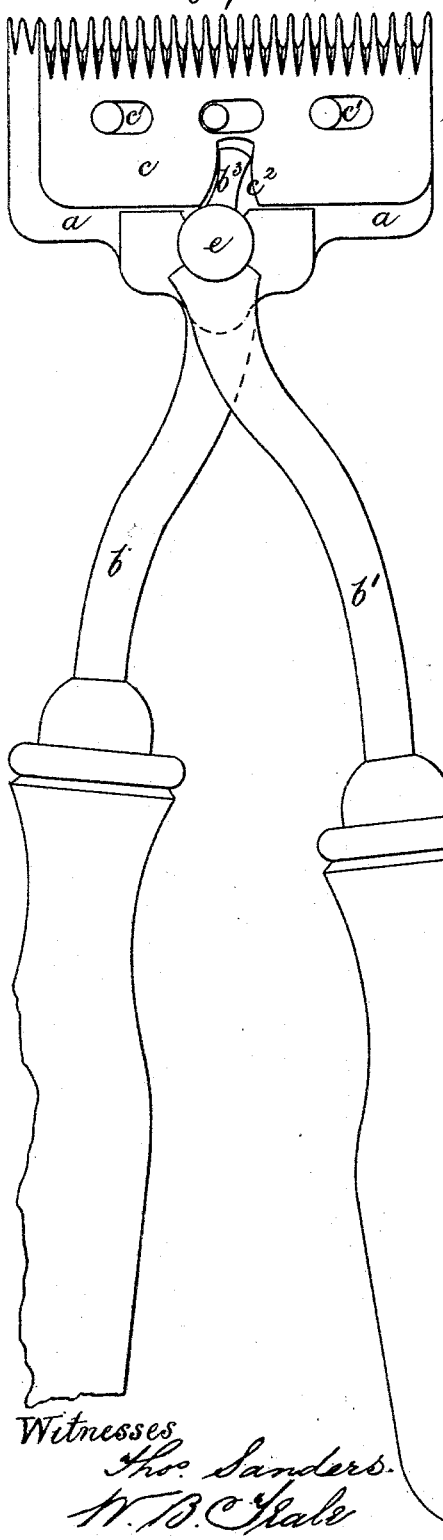


Fig. 6.

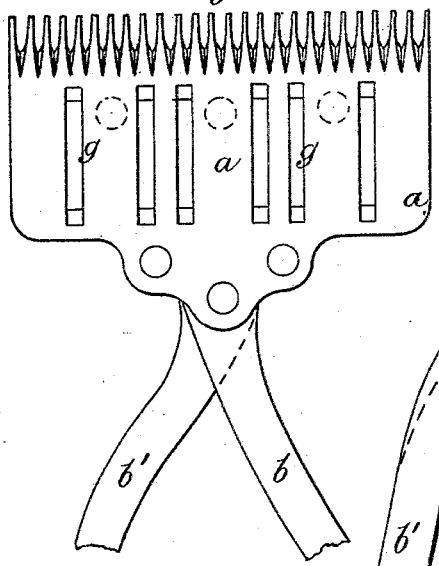


Fig. 8.

Witnesses
Thos. Sanders.
W. B. Hale

Inventor.
William Bown

UNITED STATES PATENT OFFICE.

WILLIAM BOWN, OF BIRMINGHAM, ENGLAND.

IMPROVEMENT IN HORSE-CLIPPERS.

Specification forming part of Letters Patent No. **210,909**, dated December 17, 1878; application filed September 27, 1877; patented in England, February 25, 1874.

To all whom it may concern:

Be it known that I, WILLIAM BOWN, of Birmingham, England, have invented certain Improvements in Horse-Clippers, of which the following is a specification:

One of the objects of this invention is to simplify the construction of horse-clippers by doing away with many of the loose parts, which are liable to become detached and lost, thereby rendering the instrument temporarily useless.

Another object of my invention is to so construct the parts as to prevent the instrument from being clogged by hair and dirt, which, if not removed, will injure the cutting-edges and otherwise derange the apparatus.

In the accompanying drawings, Figure 1, Sheet 1, is a front view, and Fig. 2, Sheet 1, an edge view, of my improved horse-clipper.

The fixed serrated or toothed cutter-plate *a* is secured, as usual, by screws or rivets to the stem of one of the handles *b* b^1, and upon it slides the movable toothed cutter-plate *c*, the latter being slotted, as shown at c^1 c^1 in the detached views, Figs. 3 and 3^A, in order to receive guide-pins which project from the inner face of a T-piece or clamping-bar, *d*, which is secured to the fixed cutter *a* by means of a screw-bolt, a^1, and wing-nut a^2, or thumb-screw.

The T-shaped clamping-bar *d*, whereby the movable cutter *c* is held in place, is shown detached in front and edge views, Figs. 4 and 5, Sheet 1, and through the center of this clamping-bar passes the screw-bolt a^1, which is intended to receive the clamping-nut a^2. Projecting inward from the tail end of the T-piece *d* is a stud-pin, d^1, Figs. 4 and 5, which passes through a hole, b^2, in the movable or propelling handle b^1, and enters a hole in the fixed cutter-plate *a*, and thus forms a fulcrum for the movable handle b^1. The stem of this handle carries at its upper end a short projecting arm, b^3, which enters a notch or recess, c^2, made in the movable cutter-plate *c*, and serves to impart a reciprocating motion thereto. The clamping-nut bears on the back of the T-shaped clamping-bar near the middle, and by this arrangement the clamping-bar *d*, while being screwed up, will be caused to adjust and equalize its pressure upon the moving cutter-plate *c*, thereby rendering this part of the instrument self-adjusting.

Fig. 6, Sheet 2, is a back view, and Fig. 7, Sheet 2, a front view, of a modification of the horse-clipper just described, the T-shaped clamping-piece having been removed in order that the joint may be more clearly seen. Fig. 8, Sheet 2, is a section of the same.

In this case the principal working parts are constructed very much in the same manner as those shown at Figs. 1 to 5. In Fig. 6, Sheet 2, are shown a number of slots, *g g*, made in the fixed plate *a*, and arranged in parallel lines below and in line with the teeth of the cutting-plates. The ends of the slots are chamfered or beveled outward, in order to prevent the back plate from picking up any dirt from the horse's skin, and also to facilitate the discharge of any hair or dirt that may work in between the cutters.

It will be obvious that in place of the long slots shown in the drawings, openings of other forms may be used.

In order to reduce the instrument to as few pieces as possible, and thus obviate the liability of losing small detached parts when the machine is taken to pieces, I form the upper end of the movable handle b^1 with a boss, *e*, Figs. 7 and 8, Sheet 2, which fits into a circular countersunk recess made either in the fixed cutting-plate *a* or in the head of the fixed handle *b*. By this means I dispense with the use of the fulcrum-pin and the nut, which are liable to be dropped out and lost, thereby rendering the instrument temporarily useless.

Instead of securing the cutting-plates by means of a nut and screw-bolt passed through them and the T-shaped clamping-piece *d*, I effect this object by means of a simple thumb-screw, *f*, which screws into a hole tapped in the fixed cutting-plate *a*.

Instead of making the clamping-bar T-shaped, so that it may carry the fulcrum-pin of the movable handle, as shown in the drawings, it may be made straight, and be held in its place by a clamping screw and nut.

By arranging the several parts of horse-clippers as herein set forth, the construction of

these instruments is much simplified. They are also greatly strengthened, and are rendered less liable to derangement than horse-clippers of the ordinary construction. Moreover, by dispensing with many loose parts, the risk of losing such parts and thereby temporarily disabling the instrument is avoided, for it will be observed that one has only to unscrew the wing-nut (which is the only nut used) and the whole structure may fall to pieces, thus allowing it to be thoroughly cleansed, oiled, and again put together; that it cannot go together wrong, and when sufficiently screwed up, which can be done with the thumb and finger, it will always do its work; and that all this can readily be done by any unskilled workman or laborer, or even by a child, while in other constructions the putting together of the parts and their adjustments generally, if not always, requires special tools or a skilled workman.

Again, there is no riveted metal in the construction of my clipper, and consequently I avoid all shackling and loosening of the parts.

I lay no claim to the parallel action of the top and bottom plates, nor to the levers or handles for actuating the same; but

What I do claim is—

1. In a horse-clipper, the T-shaped device *d*, constructed and applied as shown and described, its projecting pins or studs serving, one as an axis for the movable lever to work upon, and the others as guides to the movable cutter-plate.

2. In combination with the reciprocating plate *c*, the T-shaped bar *d*, and a single fastening device, the plate *a*, constructed with a series of long parallel slots, *g g*, chamfered or beveled outward at the top and bottom of the slots, as and for the purpose described.

WILLIAM BOWN.

Witnesses:
THOS. SANDERS,
W. B. TEALE.

1.250 words.