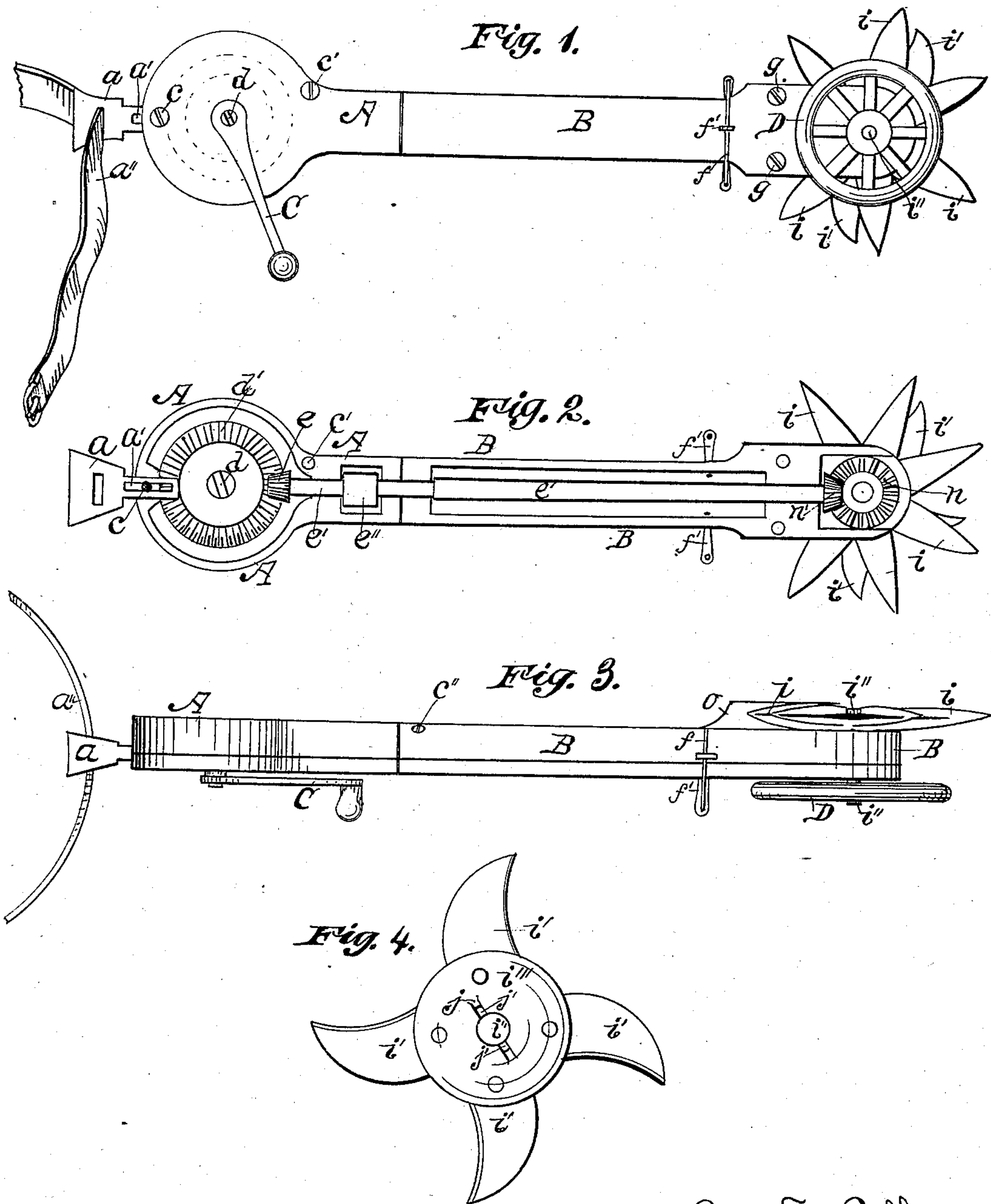


(No Model.)

B. F. BELL.
HAND HEDGE TRIMMER.

No. 316,937

Patented May 5, 1885.



Witnesses:
J. E. Adamson
J. A. Adamson.

B. F. Bell,
Inventor:
By J. E. Adamson.
Atty.

UNITED STATES PATENT OFFICE.

BENJAMIN F. BELL, OF YATES CENTER, KANSAS.

HAND HEDGE-TRIMMER.

SPECIFICATION forming part of Letters Patent No. 316,937, dated May 5, 1885.

Application filed July 21, 1884. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. BELL, a citizen of the United States, residing at Yates Center, in the county of Woodson and State of Kansas, have invented a new and useful Improvement in Hand Hedge-Trimmers, of which the following is a specification.

My invention relates to that class of hedge-trimmers which are carried by one person and operated by a revolving crank, which revolves the cutting-wheel; and the objects of my invention are, first, to construct a neat and compact device for trimming hedge; second, to construct a hedge-trimmer that will be cheap, easily managed, and not liable to get out of order; third, to construct a hedge-trimmer that can be conveniently and rapidly operated by one person. I attain these objects by the mechanism illustrated by the accompanying drawings, in which—

Figure 1 is a side elevation. Fig. 2 is a longitudinal view. Fig. 3 is an edge view, and Fig. 4 is a view of the rotating cutter.

Similar letters refer to similar parts throughout the several views.

The body A B is made of wood or metal in separate pieces, and each piece made separable longitudinally for inserting and securing the interior mechanism, as hereinafter fully described.

The part A A is held next to the operator, and made hollow to receive a gear-wheel, d' , and other parts, as shown in Fig. 2. In the outer end of said body A is secured a breast, stud, or arm, a , which is slotted at a' , so that it is held adjustably between the said parts A A by a screw, c , the screws c and c' holding the parts A A together. A crank, C, is secured to the journal d , which passes through one of the sides A and wheel d' , all as shown.

The forward part of the body B is attached to the rear part by the shaft e' , which runs longitudinally through the center of the said parts A B, and has a pinion, e , on one end and a similar pinion, n' , on the other. The said shaft e' is provided with a collar, e'' , near the pinion e , which prevents the said pinion from working away from the wheel d' , and also prevents the parts A and B from separating.

The forward end of the body B is made hollow for the reception of a pinion, n , which is

secured to the shaft i'' , which passes laterally through the said end. The pinion n' , which is secured to the end of shaft e' , works in and against said pinion n on the cross-shaft i'' , as shown in Fig. 2.

On one side of the body B, and on one end of the said shaft, is secured a small balance-wheel, D, as shown, and on the opposite side and opposite end of said shaft is secured a cutter or knife wheel, $i' i'''$. Around the said wheel and to the adjacent side are secured slotted guards i , through which the knives i' on said cutter work. The center i''' of the said cutter-wheel is made thicker than the knives, with a recess, j , for securing a pin, j' , which passes through the end of shaft i'' and holds the said knife solid to said shaft.

The back or center guard, o , which is made larger than the rest, also forms a guard to prevent the hedge from striking the hand. A guard for the hand is also formed on the other side of the body B by a wire, f , passing partly around the same through the posts f' , as shown.

The screws $g g$ and c'' hold the two plates B B together, and thereby the inside gearing and shaft are covered so that they cannot get out of order or fill with dirt.

As thus constructed, the arm a is adjusted to suit the operator, and the strap a'' buckled around the waist. With the right hand take hold of the body just back of the guards and turn it to suit on the sides or top of the hedge, while the left hand turns the crank C. The knives revolve very rapidly, and will cut anything, from the smallest sprout to the year-old branches of the hedge, and the operator can cut the sides and top of the hedge while standing in one position.

Having thus described my invention, I claim the following as new, and desire to secure the same by Letters Patent:

1. In a hedge-trimmer, the body A B, the sections connected together by a central shaft having a pinion on each end and a collar, for the purpose set forth.

2. In a hedge-trimmer, the rear end, A, having a cog-wheel, d' , within it secured to the crank-shaft a , and the adjustable arm $a a'$, carrying a strap, a'' , all for the purpose set forth.

3. The forward end, B, having guards i arranged in a circle within which the cutter-

wheel *i' i'''* works, the said wheel secured to one end of shaft *i''*, and wheel D at the other, and made to revolve by means of cog-wheels arranged within said body and operated by
5 the crank C, all as and for the purpose set forth.

4. The combination, with a hedge-trimmer, of the arm *a*, adjustably secured to the body by a screw working in slot *a'*, and having a
10 strap, *a''*, all for the purpose set forth.

5. The combination, with the body A B, of

the operating mechanism arranged within said body, the guards *i*, knives *i'*, shaft *i''*, and wheel D, all for the purpose set forth.

6. The combination, with the body of the 15 trimmer, of the guards *f f'*, arranged near the front end of the same, all as shown, and for the purpose set forth.

BENJAMIN F. BELL.

Witnesses:

THOMAS CLEVINGER,
W. A. BAILEY.