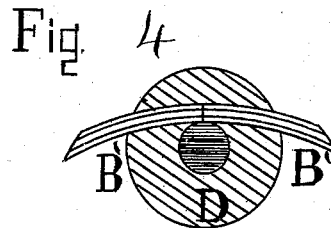
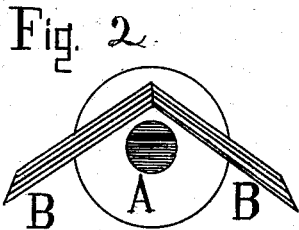
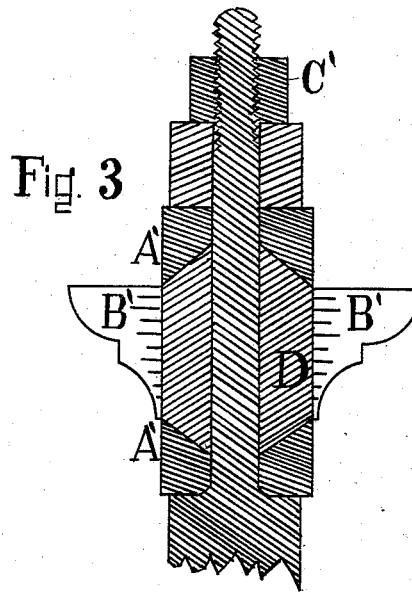
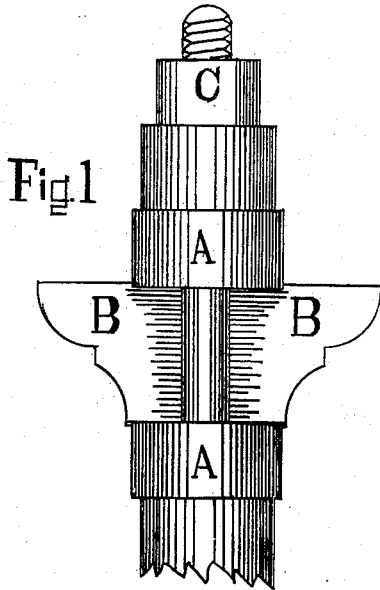


C. R. PATTERSON.
CUTTER-HEAD.

No. 191,878.

Patented June 12, 1877.



WITNESSES
Thos J. Snowden
G. H. Campbell

INVENTOR
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UNITED STATES PATENT OFFICE

CHESTER R. PATTERSON, OF PITTSTON, PENNSYLVANIA.

IMPROVEMENT IN CUTTER-HEADS.

Specification forming part of Letters Patent No. **191,878**, dated June 12, 1877; application filed February 24, 1877.

To all whom it may concern:

Be it known that I, CHESTER R. PATTERSON, of Pittston, in the county of Luzerne and the State of Pennsylvania, have invented an Improvement in Cutter-Heads, which improvement is fully set forth in the following specification and accompanying drawing, in which—

Figure 1 is a front view of the head. Fig. 2 is a section of head and cutters. Figs. 3 and 4 are modifications of my improved cutter-head.

The object of my invention is to furnish a device which will cut both ways and at the same time be simple and cheap.

A A are the collars by which the cutters B B are held. C is a nut which tightens them down and holds them fast.

Fig. 2 shows the angle of the cutters, which may be regulated according to the size of the collars and the length of the cutters, so that the head will balance.

A' A', in Fig. 3, represent collars concave upon one side, into which the clamp-collar D fits, and by turning down the nut C' tightens it upon the knives B' B', which may be made on a curve or straight, as desirable.

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

1. The combination of sectional cutters B B with collars A A, arranged to cut both ways, substantially as and for the purpose described.

2. A reversible cutter-head, with adjustable straight knives, constructed and operating substantially as shown and described.

CHESTER R. PATTERSON.

Witnesses:

M. P. HARWOOD,
C. D. IRELAN.