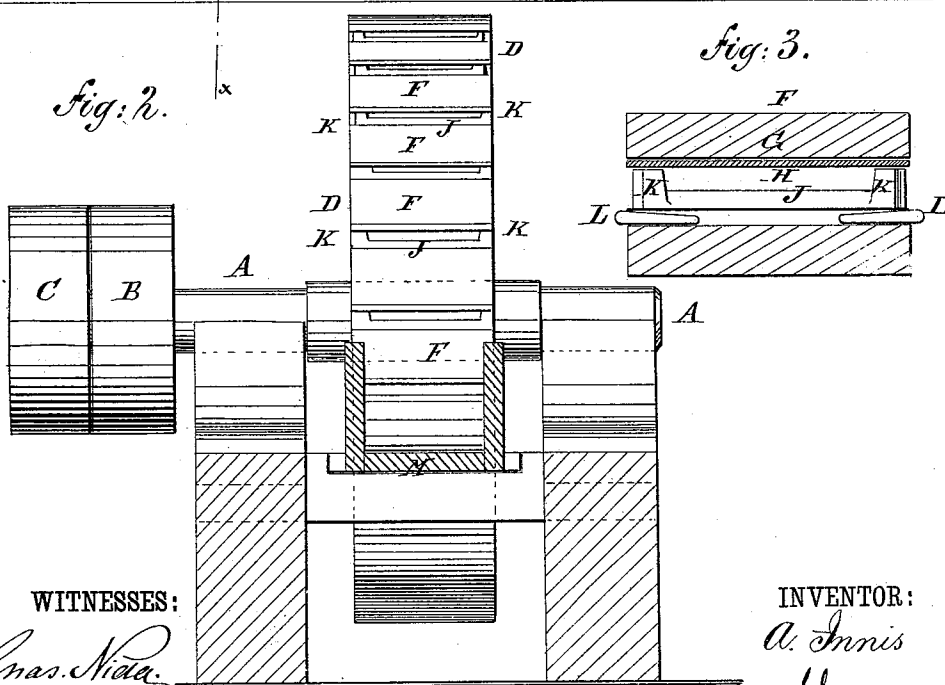
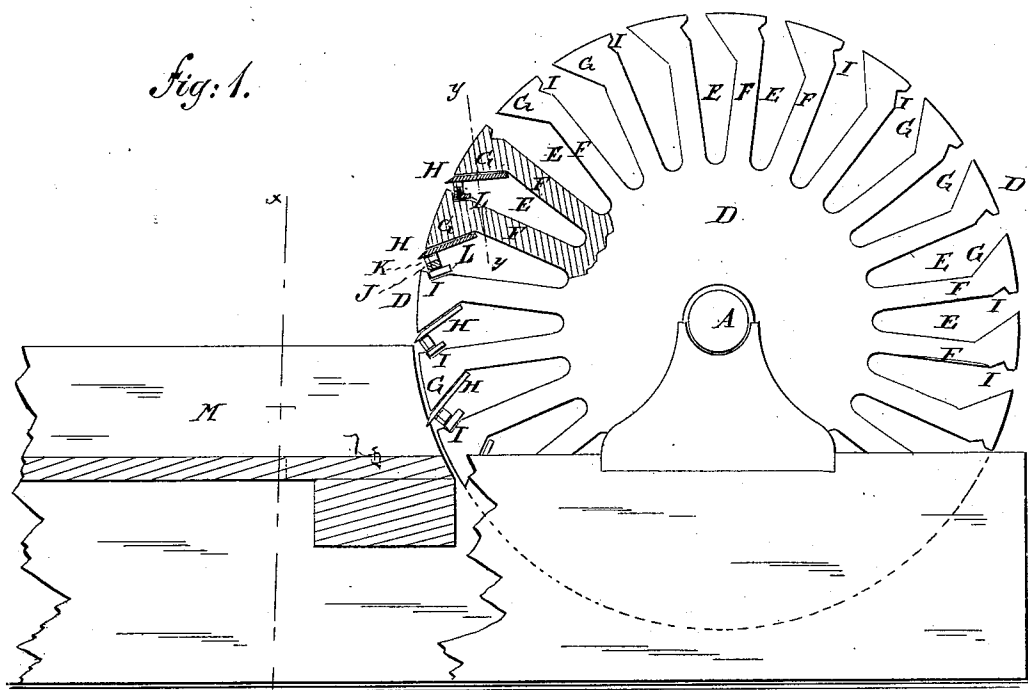


(No Model.)

A. INNIS.
Dye Wood Cutter.

No. 233,765.

Patented Oct. 26, 1880.



WITNESSES:
Chas. Nida.
C. Sedgwick

INVENTOR:

A. Innis

BY

Mum Co
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UNITED STATES PATENT OFFICE.

AARON INNIS, OF POUGHKEEPSIE, NEW YORK.

DYE-WOOD CUTTER.

SPECIFICATION forming part of Letters Patent No. 233,765, dated October 26, 1880.

Application filed April 10, 1880. (No model.)

To all whom it may concern:

Be it known that I, AARON INNIS, of Poughkeepsie, in the county of Dutchess and State of New York, have invented a new and useful
5 Improvement in Dye-Wood Cutters, of which the following is a specification.

Figure 1 is a side elevation, partly in section, of the improvement. Fig. 2 is a front elevation, the feed-trough being shown in cross-
10 section, through the line *xx*, Fig. 1. Fig. 3 is a section taken through the line *yy*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish
15 machines for cutting dye-woods and medicinal woods into pieces of suitable fineness for use in making extracts and for coloring purposes, so constructed as to do the work rapidly and thoroughly.

20 The invention consists in constructing a dye-wood cutter of a wheel slotted to form radial arms, having the forward parts of their outer ends inclined forward to form seats for the knives, and having cross-grooves upon the rear
25 side of their outer ends to form seats for cross-bars, the knives, the cross-bars having projections or studs upon their ends, and the wedges by which the studs of the cross-bars are forced against the knives to hold them in
30 place, as will be hereinafter fully described.

A is a shaft which revolves in bearings in suitable supports, and has a fast pulley, B, and a loose pulley, C, attached to it to receive the driving-belt.

35 To the shaft A is attached a cutting-wheel, D, which is made in cylindrical form, and has radial slots E formed in it, forming a series of radial arms, F. The forward side, G, of the outer end of each arm F is inclined forward
40 to receive a knife, H, and give a proper forward inclination to the said knife.

In the rear side of the outer end of each arm F is formed an angular cross-groove, I, to form a seat for a cross-bar, J, upon the ends
45 of which are formed projections or studs K to rest against the forward side of the end parts

of the knife H. The bar J is forced forward to press the studs K against the knife H and hold it firmly in place by wedges L driven in between the ends of the bar J and the bottom
50 of the groove I, as shown in Fig. 3. The wood to be cut is placed in a feed-trough, M, and is fed forward by a follower driven by a rack and pinion or other suitable feed mechanism. The feed mechanism is not shown in the drawings. 55
The inner end of the feed-trough M is concaved to correspond with the curvature of the rim of the cutting-wheel D, so that the wood may be firmly supported while being cut.

With this construction the wood is very
60 rapidly cut into fine pieces, the slots E allowing the chips to escape freely.

Having thus described my invention, I claim as new and desire to secure by Letters Pat-
ent— 65

1. A dye-wood cutter constructed substantially as herein shown and described, consisting of the wheel D, having radial arms F, the knives H, the cross-bars J, having end pro-
70 jections or studs, K, and the wedges L, substantially as herein shown and described.

2. In a dye-wood cutter, the wheel D, constructed with slots E, forming radial arms F, having the forward parts of their outer ends inclined forward to form seats G for the knives
75 H, and having cross-grooves in the rear sides of their outer ends to form seats for the cross-bars that fasten the knives in place, substantially as herein shown and described.

3. In a dye-wood cutter, the combination of
80 the wheel D, having radial arms F, with inclined knife-seats G upon the forward side, and cross-grooves I upon the rear side of their outer ends, the knives H, the cross-bars J, having studs or projections at their ends, and the
85 wedges L, substantially as herein shown and described.

AARON INNIS.

Witnesses:

JAMES T. GRAHAM,
JAMES H. HUNTER.