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C. W. Beals
Auger and Bit Renovator.

PATENTED AUG 1 1871

Fig: 1.

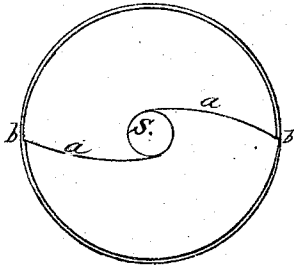


Fig: 2.

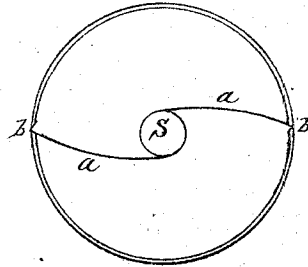


Fig: 3.

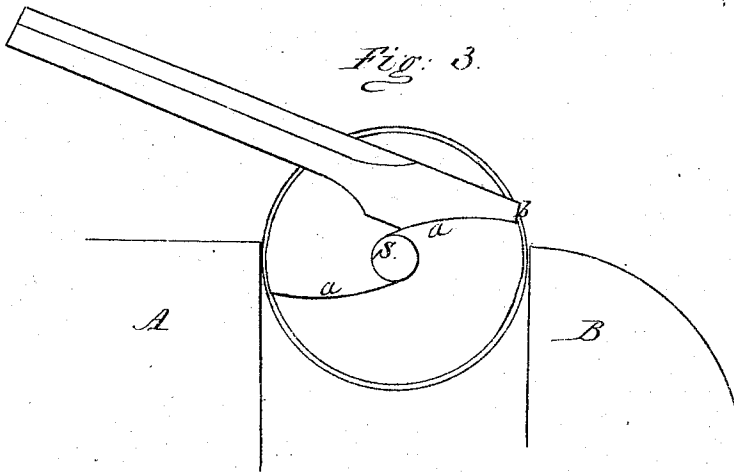
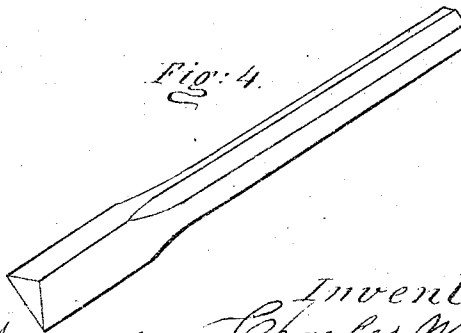


Fig: 4.



Witnesses. { *Geo C Lambright*

J. H. Phillips

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UNITED STATES PATENT OFFICE.

CHARLES W. BEALS, OF GREIG, NEW YORK.

IMPROVEMENT IN DEVICES FOR RESETTING OLD AUGER-BITS.

Specification forming part of Letters Patent No. 117,594, dated August 1, 1871.

To all whom it may concern:

Be it known that I, CHARLES W. BEALS, of Greig, county of Lewis and State of New York, have invented a new and useful invention for the purpose of renewing or making useful old Augers and Bits that have been worn out, and Improving new Augers and Bits; and the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing and the letters of reference marked thereon which make a part of this specification.

My invention relates to the principle of spreading or turning out the lips of augers and bits and turning down the bottom lips of the same.

The operation is performed by a straight three-cornered equilateral punch, with a perfectly smooth face at the end. To make a more convenient handle, the corners are taken off about three-fourths of its length—that is, the handle has six equal sides. A single punch of this description is adapted to all sizes of augers and bits.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and mode of operation.

Figure 1 represents a face or end view of an auger whose bit is worn out and useless; Fig. 2, a face or end view of the auger as renewed. Fig. 3 represents the method of applying the punch to the side lips when said auger is in position in the vise A and B; Fig. 4, the punch in perspective.

S represents the spur of the auger; *a a*, the bottom lips; and *b*, the place of the side lips.

The punch is made of steel, about four inches in length, and each side of the face about half

an inch. If the lips of the auger are thick or blunt at the edge they should be filed on the inside and brought to a good edge. File the bottom lips at the corner, so that the side lips will project from a sixteenth to a thirty-second part of an inch in front of the bottom lips. Then the operator should seat himself in front of the vise, place the auger in the vise, spur to the left, the lip that is in front projecting from one-eighth to one-fourth of an inch above the jaw of the vise, as represented in Fig. 3. Tighten up the vise, being careful that the greatest pressure comes on the lips, so as not to spring the auger. Take a light tack-hammer in the right hand, punch between the thumb and two fingers of the left hand, the face of the punch toward you, with one corner down. Place the face of the punch perfectly flat against the inside of the lip, then raise the handle of the punch a little, that the face may rest against the edge. Strike light and even blows, (raising the hammer about an inch,) until the edge is turned out as much as required. Take it out of the vise and face the outside of the lip with an oil-stone. The bottom lips may be turned down upon the same principle. The side spaces of bits may be turned out, as above.

I claim—

For the purpose of renewing auger-bits, in the manner herein described, the straight three-cornered punch with a perfectly smooth face, as herein described and substantially set forth.

CHARLES W. BEALS.

Witnesses:

E. E. SACKET,
C. D. BEALS.