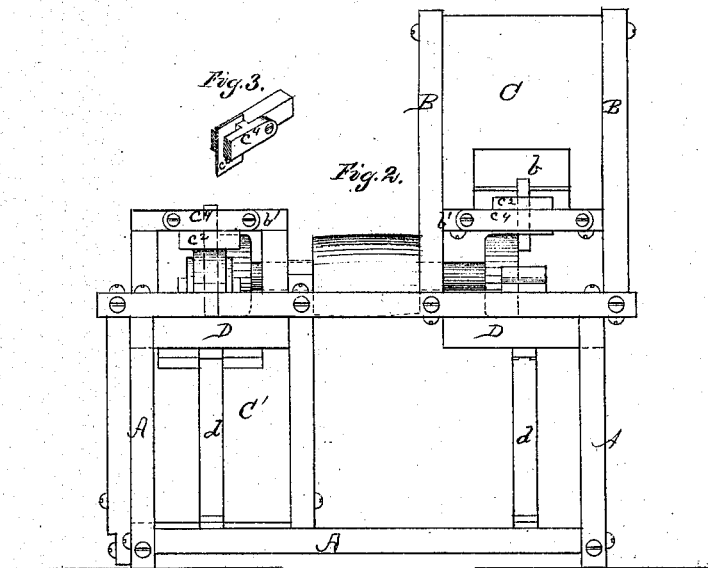


*Patented Oct. 4, 1870.*



Inventor  
E. S. French by  
H. W. Beadle atty.

# United States Patent Office.

ERASTUS S. FRENCH, OF WESTMINSTER, MASSACHUSETTS.

Letters Patent No. 108,015, dated October 4, 1870.

## IMPROVEMENT IN MACHINES FOR SCRAPING CHAIR-BACKS.

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that I, ERASTUS S. FRENCH, of Westminster, in the county of Worcester and State of Massachusetts, have invented a new and useful Machine for Scraping Chair-Backs; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

This invention has for its object the production of a machine adapted for scraping or smoothing chair-backs or other similar articles, which are sawed cut in the line of a circle, and consists mainly in so arranging the knife or scraper of the machine that it is enabled to swing in the arc of a circle.

It further consists, also, in combining with the knife, thus arranged, an adjustable block to support the article to be scraped.

In the drawing—

Figure 1 represents a side elevation of my improved machine;

Figure 2, an end elevation; and

Figure 3, a cross-section, in perspective, showing the manner of securing the knife to the frame.

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

A A A represent a frame, which is provided with suitable cross-beams and uprights, and may be of any proper size and form.

B B B' B' represent standards, the former of which rise above the upper beams of the frame A, while the latter extend below them, as clearly shown in the drawing.

C C' represent swinging frames, or they may be solid pieces of timber, if preferred, which are pivoted at *c c' c'*, between the uprights B B' B' B' as shown, and are provided with an opening, *b*, and cross-bar *b'*, and have also attached thereto the knives *c<sup>2</sup> c<sup>2</sup>*.

These knives are secured to the cross-bars at the free ends of the frames, by means of a bearing-plate, *c<sup>3</sup>*, having suitable projections, as shown in fig. 3.

This method of attachment permits the knife to be readily adjusted, and also permits it to be easily removed when it is desired to do so for any purpose.

D D represent the supporting blocks, which are provided with suitable curved rest-blocks for holding the chair-backs, or other articles to be operated upon.

These blocks D are pivoted at one end, as shown in fig. 1, and are supported at the other by means of connecting-rods *d*, the lower ends of which latter are attached to the foot-treadles *d' d'*.

It will be observed that by the different arrangement of the swinging-frames, one being located above the upper beams of the main frame, and the other below them, they are adapted to scrape both sides of the chair-back.

The frame C, having its knife extending outward from its cross-beam, is adapted to scrape off the inner surface of the chair-back, while the frame C', having its knife extending inward from its cross-beam, is adapted to scrape the outer surface of the chair-back.

These frames receive their swinging motion from pitmen connecting with disks upon a revolving shaft.

The operation is as follows:

The machine is first set in motion. The chair-back or other article to be scraped is then placed upon the supporting-block, which naturally rests in the position shown in fig. 1; that is, with its moving end depressed. The first treadle is now operated, to force the block up toward the knife, in which position it is held, while the article is scraped by the reciprocating action of the knife.

In practice, one end of the back is usually scraped, and then it is turned to permit the other end to be operated upon.

By means of this machine, the rough back, as it comes from the saw, is quickly smoothed and made ready for the sand-papering process.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The swinging-frame C, constructed specifically as described, with its bars *c'* and knife *c<sup>2</sup>*, as set forth.

2. The machine described, consisting essentially of the frame A, uprights B B' B' B', swinging-frames C C', provided with knives, operated as described, and adjustable supporting-blocks D, when curved as described, for the purpose set forth.

This specification signed and witnessed this 19th day of May, 1870.

E. S. FRENCH.

Witnesses:

S. D. SIMONDS.

B. FRANK WOOD.