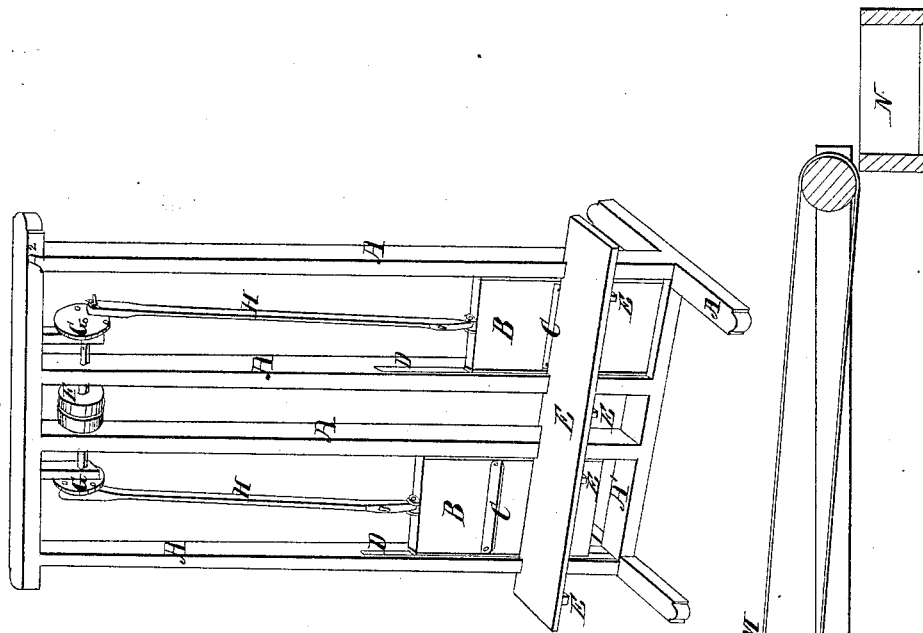
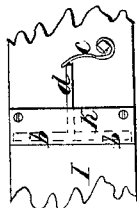


*L. Gleason,*  
*Shirring Wood.*  
*No 2,289.*      *Patented Oct. 9, 1841.*

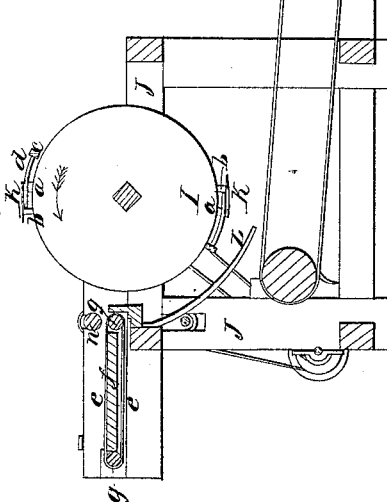
*Fig: 1.*



*Fig: 3.*



*Fig: 2.*



# UNITED STATES PATENT OFFICE.

LYMAN GLEASON, OF LE ROY, NEW YORK.

## MACHINE FOR CUTTING SPLINTS FOR MANUFACTURING BROOMS AND OTHER ARTICLES.

Specification of Letters Patent No. 2,289, dated October 9, 1841.

*To all whom it may concern:*

Be it known that I, LYMAN GLEASON, of Le Roy, in the county of Genesee and State of New York, have invented an Improved  
5 Revolving Splint-Cutting Machine for Cutting or Making Splints of Wood for Manufacturing Brooms and other Articles; and I do hereby declare that the following is a full and exact description thereof.

10 I take blocks or bolts of wood, of any of the kinds which possess that degree of toughness and elasticity in the fiber which adapts it to the purpose to which it is to be applied; when intended for the manufac-  
15 turing of brooms,—the bolts, or blocks, are first to be prepared of the proper length for that purpose, and these blocks or bolts I cut into shavings, or scale boards, by means of vibrating cutting knives, working up and  
20 down between slides, or fender posts, in the manner of the knives used in some machines for cutting shingles, and for other purposes. In Figure 1, in the accompanying drawing, I have represented a machine of this kind  
25 which I have used for cutting the stuff into scale boards, or shavings, preparatory to the cutting it into splints, which latter operation I effect by means of another machine to be presently described.

30 The machine, Fig. 1, has four upright posts A, A, which may be twelve feet long, and these are framed into a sill A', and into a cap piece A<sup>2</sup>. Between these posts there are sliding gates B, B. These I have made  
35 about two feet two inches wide, four feet long, and four inches thick; they slide up and down on guide pieces, or tongues, D, D, within the posts A, A. To each of the sliding gates, I affix a cutting knife C, C, reaching across from side to side. These  
40 may be set to cut shavings of different thicknesses, say from the sixteenth to the sixtieth of an inch, according to the nature of the stuff, and the quality of the article to be  
45 made from it. There is a throat through each of the sliding gates, allowing the shaving to pass freely through it. The knives which I have used have been twenty-two  
50 inches long, four inches wide and half an inch thick.

The stuff to be cut is held upon a stout, firmly fixed bench E, and pressed against the knives by hand. And adequate power applied to the driving pulley F, causing it  
55 to revolve, will give motion to the crank

wheels G, G, which should be about sixteen inches in diameter, and these will actuate the cutting knives through the intermedium of the pitman H, H. The advantages resulting from the use of double slides and knives, 60 rising and falling alternately, will be apparent, as they will balance each other, and economize the power applied. Other machines may be used for reducing the stuff into shavings preparatory to the cutting 65 them into splints by means of my revolving splint cutting machine, but having found the foregoing to answer the purpose well, I have thought it best to describe it.

Fig. 2, is a vertical section along my re- 70 volving splint-cutting machine. I, is a cylinder which may be two feet four inches in diameter, and two feet two inches wide, more or less. This cylinder is sustained on a suitable frame J, J, and is to be made to 75 revolve with great rapidity by means of a whirl and band, or otherwise. It may make four or five hundred revolutions a minute. A top view of a part of this cylinder is shown in Fig. 3. K, K, are knives which 80 cross the cylinder, and may be three inches wide; these knives have their ends resting on blocks, so as to sustain them at the distance of an inch, or an inch and a half, from the cylinder along the whole length and 85 width; and between them and the cylinder, I place a spring-clearer, which throws off the splints as they are cut by the knives, causing them to fall in a regular manner upon the apparatus from which they are to 90 be collected. This spring-clearer consists of a strip of metal b, b, shown by dotted lines in Fig. 3, which fills the space, but slides freely between the knives and the cylinder; c, is a spring, bearing against a tail 95 piece d, to force the clearer forward.

A feeding apron e, e, the upper side of which rests upon a board f, is placed in front of the machine; the feeding rollers g, g, are driven by bands and whirls from 100 the shaft of the main cylinder; and there is a pressing roller h, all of which are constructed and arranged in the usual way of constructing and arranging such apparatus. The prepared shavings, or scale boards, 105 placed one upon another in such numbers as may be found convenient, are laid upon the feeding apron, and passed between the pressing roller h, and the forward feeding roller; and these will be carried for- 110

ward so as to be sustained, in the operation of cutting, upon the rest *i*, against which the edges of the knives, K, K, act. The feed is regulated by the size of the respective  
5 whirls; and as the splints are cut the spring-clearer recedes, admitting them into the space between the knife and the cylinder; the spring reacting on the clearer, throws the splints upon a curved curb L, as the  
10 knives pass the rest *i*; and they may be collected in boxes placed directly under the curb L, or be conducted off by an endless apron M, and collected in a box N, at its far end. Without the use of the spring-clearer  
15 and curb, the splints would be scattered in all directions, but by their aid said splints

are deposited and collected with great regularity.

Having thus, fully described the manner in which I construct and arrange the re- 20 spective parts of my revolving splint-cutting machine, what I claim therein as new, and desire to secure by Letters Patent, is—

The employment of the spring-clearer, in combination with the knives, and with the 25 curb, for the purpose, and arranged substantially in the manner herein set forth.

LYMAN GLEASON.

Witnesses:

THOS. P. JONES,

WM. H. BISHOP.