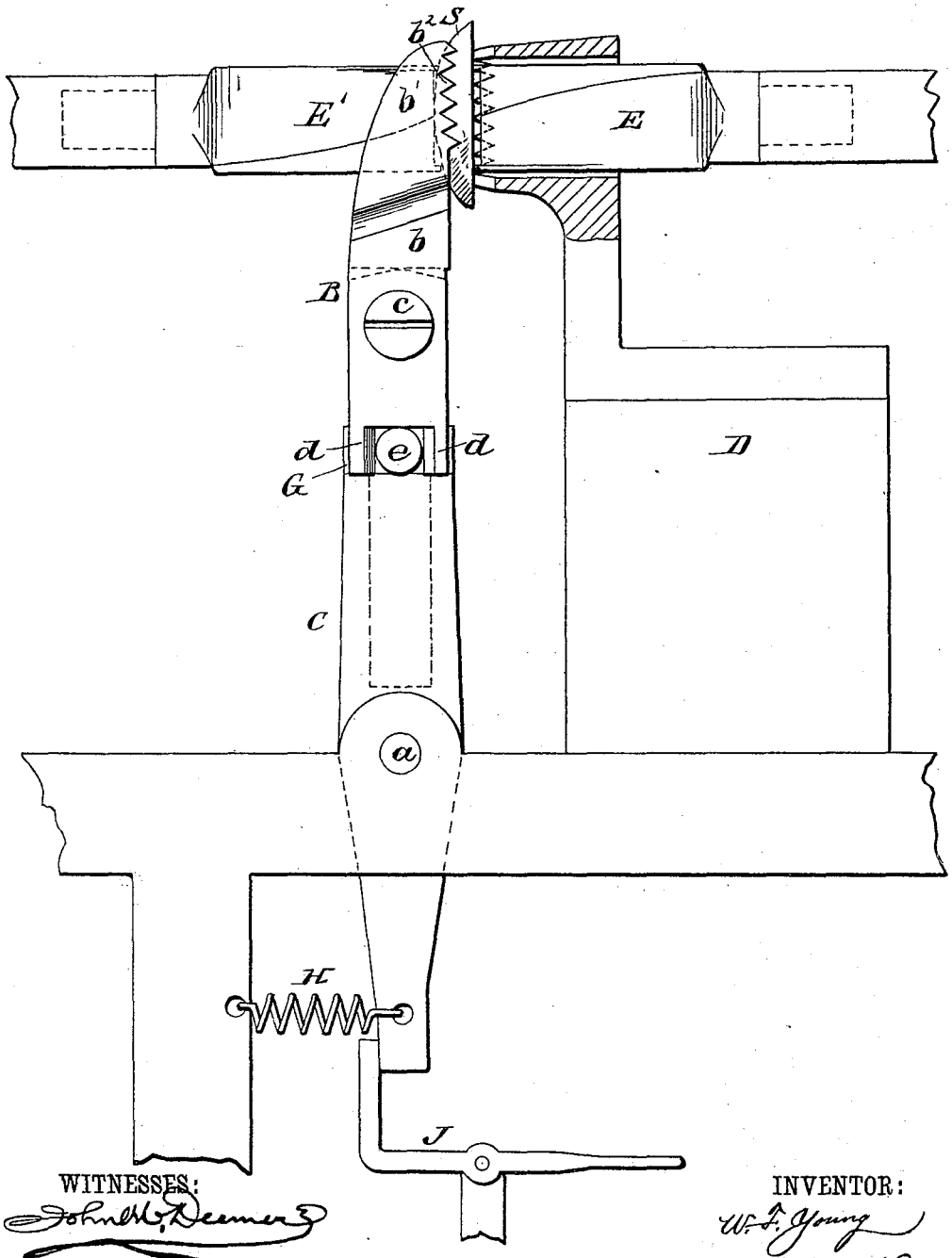
(No Model.) 2 Sheets—Sheet 1.

W. F. YOUNG.

GRIP FOR BUTTON LATHES.

No. 372,443. Patented Nov. 1, 1887.

Fig. 1.



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(No Model.)

2 Sheets—Sheet 2.

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GRIP FOR BUTTON LATHES.

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Fig. 2.

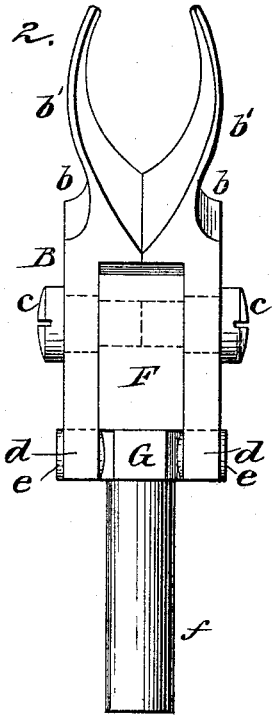


Fig. 3.

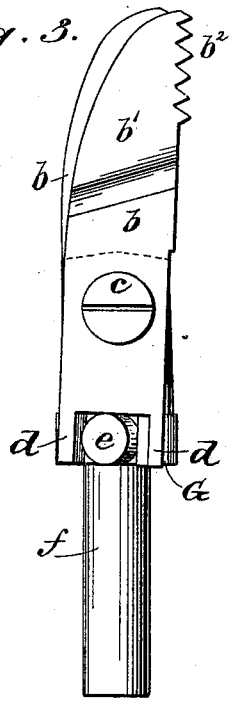
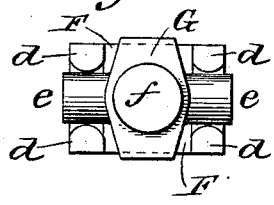


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILL F. YOUNG, OF NEW YORK, N. Y.

GRIP FOR BUTTON-LATHES.

SPECIFICATION forming part of Letters Patent No. 372,443, dated November 1, 1887.

Application filed April 11, 1887. Serial No. 234,440. (No model.)

To all whom it may concern:

Be it known that I, WILL F. YOUNG, of the city, county, and State of New York, have invented a new and useful Improvement in Grips for Button-Lathes, of which the following is a full, clear, and exact description.

The object of my invention is to provide a grip or jaw for vegetable-ivory-button lathes, constructed to be self-adjusting to the convex surface of the segment of ivory whether the same be regular or irregular.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of my new and improved button-lathe jaw, showing also a part of a button-lathe frame, the cutting-tools of the lathe, and showing in section the permanent hollow jaw. Fig. 2 is a front elevation of my new and improved jaw removed from its stock, and Fig. 3 is a side elevation of the same. Fig. 4 is an inverted plan view of the complete jaw.

The vegetable-ivory nut from which buttons are formed is first cut to form segments S flat upon one side and convex upon the other. This segment is held in the lathe between the toothed edges of the permanent hollow jaw A, and the jaw B held in the lever C, pivoted at *a* to the main frame D of the lathe. The rotary cutting-tool E of the lathe works through the hollow jaw A in contact with the flat surface of the segment S. Ordinarily, the jaw B is formed of two solid forks which grasp the convex side of the segment, and the other cutting-tool, E′, of the lathe works between said prongs in line with the cutting-tool E, so that the segment is cut from both sides at the same time. If the convex side of the segment is irregular, difficulty is experienced in holding the segment firmly in the lathe. By my invention this difficulty is entirely overcome, and it consists in forming the jaw B of two pivoted members, *b b*, each pivoted upon a pin, *c*, screwed into the stock F. The upper end of each jaw *b* is curved, as shown at *b′*, and serrated to form teeth b^2, and the lower end of each jaw below the pivot-pins *c* is recessed to form projections *d*. Upon the stock F is placed loosely the yoke G, formed with side extensions, *e e*, which reach between the projections *d d*, as shown clearly in the drawings. The lower end, *f*, of the stock F is rounded to permit the yoke G to turn freely upon it and enter a socket in the upper end of the lever C, which is acted upon by the spring H to hold the prongs *b b′* of the jaw B in firm contact with the segment S. In case the segment is regular the members *b b′* of the jaw will stand parallel with each other, as shown in Fig. 1, but if irregular the members *b b′* will adjust themselves to the segment, and one member will be in advance of the other, as shown in Fig. 3, and both members will grasp the segment with equal firmness as, through the medium of the yoke G, the two members of the jaw have a universal action, so that if the right-hand member, for example, rests against an enlargement of the segment its upper end will be forced backward, and, turning upon its pivot *c*, the lower end will be forced correspondingly forward. This forward movement of the lower end of said member or jaw will cause the projections *d* of said jaw to act upon the stud *e* of the yoke G, and thus turn the yoke G upon the rounded portion of the stock F. This movement of the yoke will carry the opposite stud *e* backward and cause it in turn to act upon the projection *d* at the lower end of the opposite jaw, thus forcing said lower end backward and the upper end of the jaw correspondingly forward into full contact with the segment. The opposite action will take place if the left-hand member rests in contact with an enlargement of the segment, so that the jaw as a whole can always be relied upon for firmly holding the segment, whether it be regular or not upon its convex surface.

The jaw B may be moved back to release the segment and to receive another by the angle-treadle J in the usual manner.

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

The jaw for a button-lathe, constructed substantially as herein shown and described, the same consisting of two separate grasping members, a stock to which the said members are pivoted, and a yoke pivoted upon the stock and connected at its ends to the lower ends of the members, as set forth.

WILL F. YOUNG.

Witnesses:
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WALTER H. WALDRON.