E. J. GRANGER.

Compound Chuck for Veneer-Cutting Machine.

No. 162,913. Patented May 4, 1875.

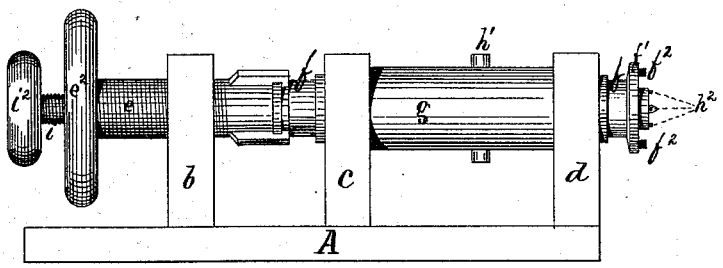

Fig. 1.

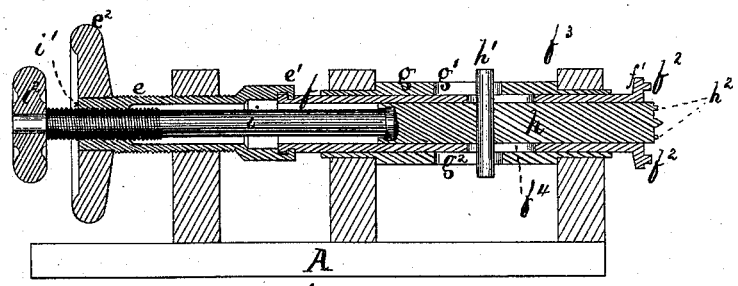

Fig. 2

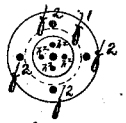

Fig. 3.

WITNESSES.

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ELIHU J. GRANGER, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN COMPOUND CHUCKS FOR VENEER-CUTTING MACHINES.

Specification forming part of Letters Patent No. **162,913**, dated May 4, 1875; application filed January 9, 1875.

To all whom it may concern:

Be it known that I, ELIHU J. GRANGER, of Brooklyn, New York, have invented certain Improvements in Compound Chucks for Veneer-Cutting Machines, of which the following is a specification:

My improvement belongs to the class of dogs used in veneer-cutting machines to clamp the ends of the block or cylinder from which veneers are being cut; and my invention consists in constructing such dogs in two or more parts telescopically jointed, each of which parts is provided with independent means of adjustment in an axial line.

In veneer-cutting machines the block of wood from which veneers are cut is clamped between two revolving spindles whose axes coincide. The opposite ends of these spindles are provided with teeth, which penetrate the ends of the block, thus centralizing it and causing it to revolve, while a cutting instrument is fed up and pares from the periphery of the block a continuous sheet of wood. It is desirable to have the largest available area of engagement of the teeth with the ends of the block, in order to hold the block with sufficient rigidity, and maintain it in its centralized position. As the paring continues the block is reduced in diameter, until at length the teeth would come into collision with the cutting instrument, if the operation were not arrested.

It is at this point that my invention comes into play. Instead of stopping the machine and replacing the larger dogs with smaller ones having their teeth nearer the center, I withdraw the outer circle of teeth, still maintaining my hold upon the block by the inner part of the dog, and am thus enabled to preserve the centralization of the block and continue the cutting operation without interruption.

The accompanying drawings are as follows: Figure 1 is a side elevation of my compound dog; Fig. 2, a vertical, longitudinal section, and Fig. 3 a face view, showing the relative position of the dog-teeth.

Referring to the drawings, A represents a portion of the bed-plate of a veneer-cutting machine, having three upright standards, *b c d*. The uprights *c* and *d* furnish the bearings for the hollow dog-spindle *g*, and the upright *b* furnishes the female-screw bearing for engaging the male thread upon the hollow adjusting-bolt *e*. The latter is provided with the clutch *e'*, the lips of which engage an annular groove near the inner end of the hollow dog-stem *f*. The hollow dog-stem *f* is inserted within the hollow spindle *g*, and upon its outer end is provided with the annular flange f^1, upon the face of which are projecting teeth f^2. The hollow stem *f* contains the central dog-stem *h*, provided with the transverse key h^1. This key projects through the longitudinal slots f^3 f^4 and g^1 g^2 in the hollow stem *f* and the hollow spindle *g*, respectively. The outer end of the central dog-stem is also provided with projecting teeth h^2.

The inner end of the stem *h* is hollow, to receive and clutch the annular lip upon the inner end of the adjusting screw-bolt *i*, the male thread of which engages the female thread i^1 upon the inside of the hollow screw-bolt *e*. The adjusting screw-bolts are respectively provided with the circular disks e^2 and i^2, for convenience in turning them.

It will be seen that the central dog-stem is made to slide back and forth through the hollow dog-stem *f*, by operating the screw-bolt *i*, and that the hollow dog-stem *f* is made to slide back and forth through the hollow spindle *g* by operating the hollow adjusting-bolt *e*, and that the two parts of the dog *h* and *f* are capable of independent axial movement, so that all the teeth may be adjusted in the same vertical plane, or may be made to occupy different vertical planes.

In operation, the teeth of both parts of the dog are forced into the end of the block of wood which is to be operated upon by means of the hollow adjusting-bolts *e* and *i*.

When the block of wood has been forced down nearly to the diameter of the annular flange f^1, the outer dog-stem *f* is withdrawn by turning back the screw-bolt *e*, while holding the inner bolt *i*. By this means the teeth h^2 are made to maintain their hold upon the block of wood, while the outer teeth f^2 are disengaged from it.

It will thus be seen that the two parts of the dog slide back and forth in the hollow spindle, like the joints of a telescope.

I claim as my invention—

A compound dog, having its parts telescopically arranged with relation to each other, and having each of its parts provided with independent means of adjustment in an axial line, substantially as described, and for the purposes set forth.

E. J. GRANGER.

Witnesses:

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