2. Sheets. Sheet 1.

G. Koch,

Veneer Cutter.

No. 105,092. Patented July 5. 1870.

Fig: 1.

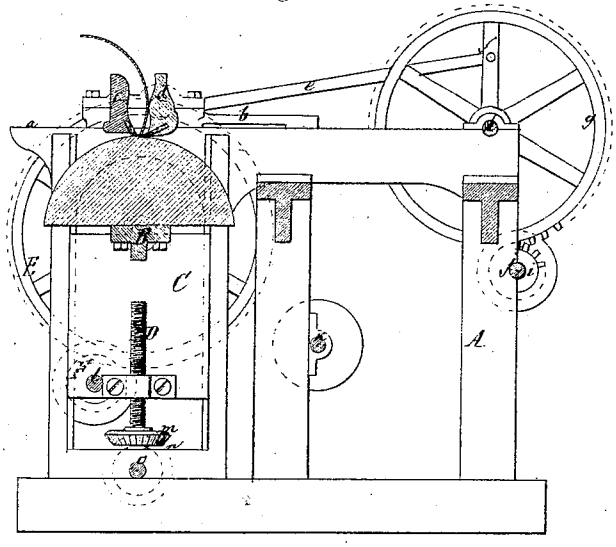
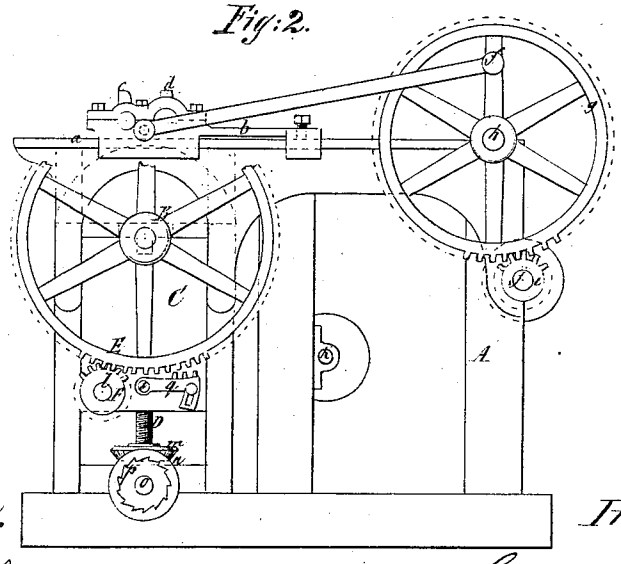


Fig: 2.



Witnesses.
C. Wahlers
E. F. Kastenhuber

Inventor:
George Koch
By VanSantvoord Hauff
his Attys

2 Sheets. Sheet. 2.

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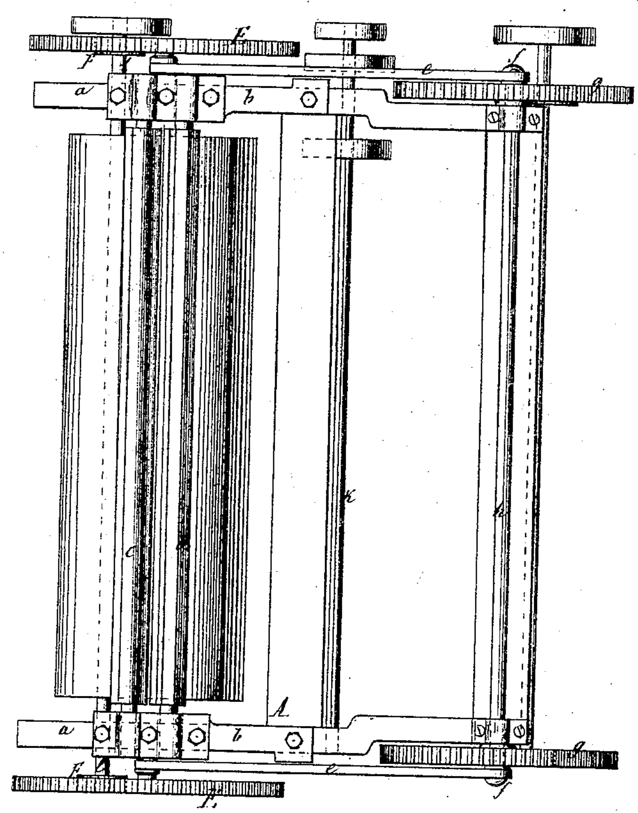
Fig: 3.



Witnesses:
C. Wahler
E. F. Kastenhuber

Inventor:
George Koch
By Van Santvoord & Hauff
his Attys

United States Patent Office.

GEORGE KOCH, OF NEW YORK, N. Y.

Letters Patent No. 105,092, *dated July* 5, 1870.

IMPROVEMENT IN VENEER-CUTTERS.

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, GEORGE KOCH, of the city, county, and State of New York, have invented a new and Improved Veneer-Cutter; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a transverse section of this invention.

Figure 2 is an end view of the same.

Figure 3 is a plan or top view of the same.

Similar letters indicate corresponding parts.

This invention relates to a machine for cutting veneer, which is so constructed that it can be used either for cutting round or for cutting flat, that is to say, either for cutting from a log which revolves, in which case the the knife remains stationary, or for cutting from a stationary block, in which case the knife receives a reciprocating motion, in such a manner that, when a log has once been secured to the holding-bar and it appears, after having cut round for a certain time, that a portion of the log is bad, then the revolving motion of said log can be stopped and its good portion can be cut flat without removing it from the holding-bar, and without the necessity of steaming it again and then securing it to the holding-bar of a flat cutting-machine.

In the drawing—

The letter A designates the frame of my machine, which is made of cast-iron or any suitable material. To the side pieces of this frame are secured the guide-ways *a*, on which are fitted the slides *b*, which carry the heads *c d*, the head *c* being intended to hold the cap, and the head *d* to hold the knife, as shown in fig. 1 of the drawing.

The slides *b* connect, by rods *e*, with eccentric wrist-pins *f*, which are secured in the arms of cog-wheels *g*, mounted on a shaft, *h*, and gearing in pinions *i*, which are mounted on the ends of a shaft, *j*, to which a revolving motion can be imparted by a belt from the driving-shaft *k*. This belt is put on when the machine is to be used for cutting flat, but when it is to be used for cutting round said belt is thrown off, and the slides *b* are firmly retained in position by set-screws or other suitable means.

The log is secured to the holding-bar B which has its bearings in the slides C fitted in vertical guide-ways in the side pieces of the frame A, so that a rising and falling motion can be imparted to the same, by means of screw-spindles D. On the gudgeons of the holding-bar are mounted cog-wheels E, which gear in pinions F mounted on a shaft, *t*, that has its bearings in suitable journal-boxes attached to the bottom parts of the slides C. A revolving motion is imparted to this shaft by means of a belt from the driving-shaft *k*, whenever the machine is to be used for cutting round.

On the screw-spindles D are mounted bevel-wheels *m*, which gear in corresponding bevel-wheels *n* mounted on a shaft, *o*, that has its bearing in the bottom part of the frame A, and to which an intermittent rotary motion is imparted by a ratchet-wheel, *p*, and by a pawl, (not shown in the drawing,) so that, for each revolution of the holding-bar, or for each stroke of the knife, the ratchet-wheel *p* is propelled one tooth, and consequently the holding-bar, together with the log, raised for the required distance.

To the slides C are secured stop-pawls *q*, (see fig. 2) which can be thrown in gear with the cog-wheels E, so as to retain the holding-bar in any desired position, when the machine is to be used for cutting flat.

In cutting round, the log, after having been steamed, is secured to the holding-bar, the knife is adjusted over the center of the holding-bar, the slides *b* are secured in position, and the shaft *l* is connected by a belt with the driving-shaft *k*. As the holding-bar with its log revolves, the surface of the log is exposed to the action of the knife, as indicated in fig. 1 of the drawing, and for each revolution of the holding-bar a veneer is cut off, and then the holding-bar is fed up for the subsequent cut.

If the log has a bad place, so that it is desirable to change the cut from round to flat, the belt connecting the shaft *l* with the driving-shaft is thrown off, the log is adjusted under the knife in the desired position by throwing the stop-pawls *q* in gear with the cog-wheels E, the slides *b* are released, the shaft *j* is connected with the driving-shaft, and thereby a reciprocating motion is imparted to the knife, the log being fed up as before. By this arrangement every good part of the log can be reached and cut up in veneers without removing said log from the holding-bar, and much time and labor are saved.

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

A machine for cutting veneers, constructed and operating substantially as herein shown and described.

GEORGE KOCH.

Witnesses:

W. HAUFF,

C. WAHLERS.