

(No Model.)

2 Sheets—Sheet 1.

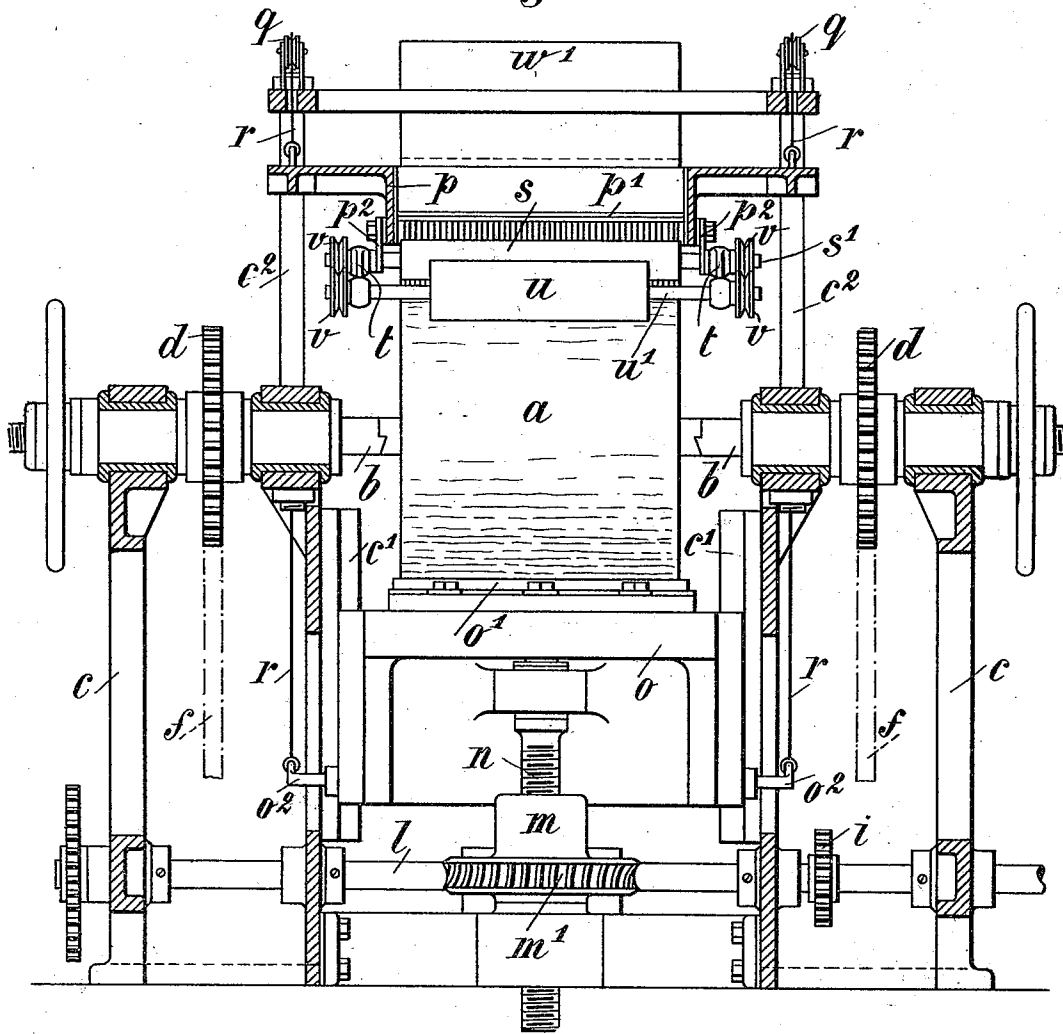
G. A. ONCKEN.

MANUFACTURE OF VENEERS AND APPARATUS THEREFOR.

No. 512,211.

Patented Jan. 2, 1894.

Fig. 1.



Witnesses:

G. H. Rea.

J. A. Hul

Inventor;

Gustav A. Oncken,

By *James E. Norris*

Atty.

(No Model.)

2 Sheets—Sheet 2.

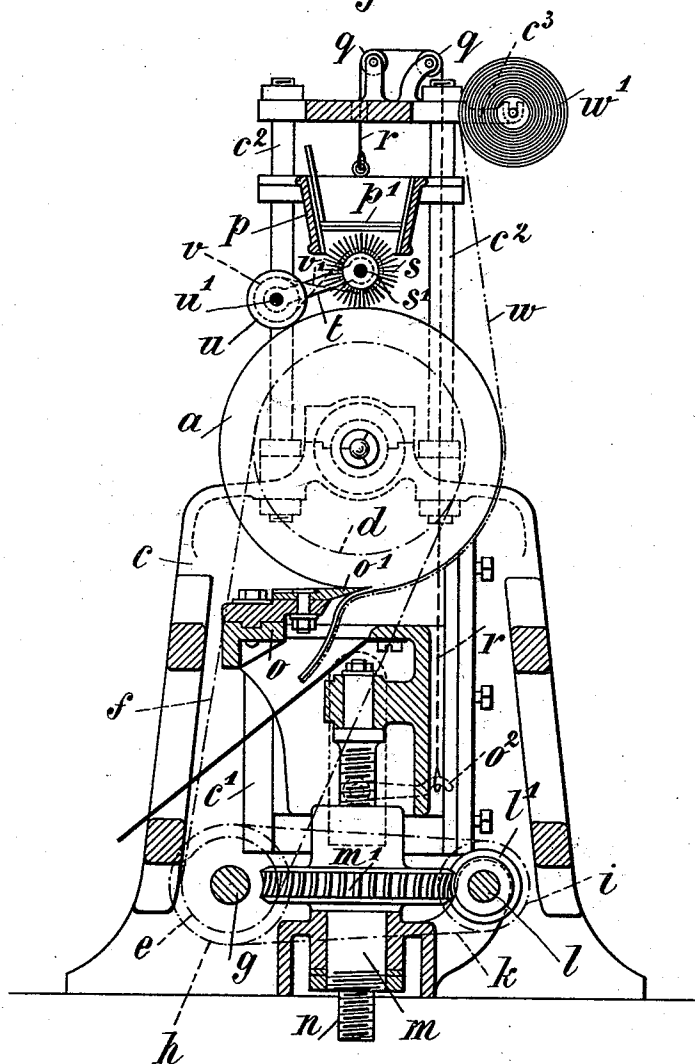
G. A. ONCKEN.

MANUFACTURE OF VENEERS AND APPARATUS THEREFOR.

No. 512,211.

Patented Jan. 2, 1894.

Fig.2.



Witnesses;
G. W. Rea.
J. A. Saul.

Inventor:
Gustav A. Oncken,
By James L. Norris
Atty.

UNITED STATES PATENT OFFICE.

GUSTAV ADOLPH ONCKEN, OF BERLIN, GERMANY.

MANUFACTURE OF VENEERS AND APPARATUS THEREFOR.

SPECIFICATION forming part of Letters Patent No. 512,211, dated January 2, 1894.

Application filed August 1, 1893. Serial No. 482,111. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV ADOLPH ONCKEN, a citizen of the United States, temporarily residing at Berlin, in the German Empire, have invented certain new and useful Improvements Relating to the Manufacture of Veneers and to Apparatus Therefor, of which the following is a specification.

This invention relates to the manufacture of veneers provided with back linings of paper, canvas or the like for wainscoting, cabinet-making and similar purposes.

In manufacturing lined veneers for wainscoting and similar purposes according to this invention, a very thin continuous strip or band of wood is cut, or pared off as it were, from a rotating block, by means of a knife or cutter arranged parallel to the axis of the latter, after a continuous band of paper or fabric, of a width at least equal to that of the block of wood, and fed from a roll has been previously pasted on to the surface of the said block, so that, as the wooden strip or veneer is cut, it is at the same time provided with a stiffening lining or support, pasted to what will eventually constitute its back surface; whereby the cracking or breaking of the thin and fragile veneer band which would otherwise be practically unfit for subsequent manipulation in rolling it up for further use is avoided. In carrying out this process it is proposed to employ an improved machine the construction, arrangement and operation of which will be best understood by reference to the accompanying drawings, in which—

Figure 1 is a front view, and Fig. 2 a sectional side elevation of the machine.

Similar letters refer to similar parts throughout the several views.

The block of wood is rotated in the well known manner by means of spindles *b* supported in suitable bearings in the frame *c* and provided with clutches; motion being imparted to these spindles from the main shaft *g* through the medium of chain-wheels *d* *e* and endless chains *f*. From the same shaft, through the medium of chain wheels *h* *i* and an endless chain *k* is driven a second shaft *l*, supported by the frame *c* and parallel to *g*; the central portion of which shaft *l* carries a worm *l'* engaging with the worm-wheel *m'* the nave *m* of which being provided with a female

thread, so that a nut is formed which is capable of rotary motion in the frame *c*, but cannot move axially. The screw spindle *n* passing through this nut is similarly connected with the knife-carrier or cutter-head *o* which, being guided in the vertical slide-ways *c'* of the frame *c*, is evenly and uniformly moved toward the revolving block *a*. As the cutter-head rises to an extent corresponding to the thickness of the leaf of wood pared off by its cutter *o'*, on the lower side of the block *a*, so also the trough or paste-receptacle *p*, guided by the uprights *c''* of the frame, descends proportionately by its own weight; the said receptacle being carried by bands or cords *r*, which pass over rollers *g*, provided in the machine frame, and have their lower ends secured to the arms *o''* of the cutter-head *o*. The adhesive material or paste, oozing through the bottom *p'* of the paste-reservoir or trough *p* which bottom may be perforated, like a sieve or strainer, or consist of a layer of filtering material such as felt is spread over the surface and rubbed into the pores, of the revolving wood block *a*, by means of a roller-shaped brush *s*, the speed of motion of which is arranged to diminish in proportion as the diameter of the said block *a* is reduced by the cutter. The means employed for thus varying the motion consists of a friction roller *u*, of india-rubber or similar material, which, by its own weight, is maintained in contact with the periphery of the block of wood, and which is supported by arms *t* loosely passed on the shaft *s'* of the revolving brush *s*, and adapted to transmit the rotary motion it receives to the said brush, through the medium of pulleys *v* *v'* and endless chain or belt *v'*. The shaft *s'* of the brush rests in arms or brackets *p''* attached to the sides of the trough *p*; and inasmuch as the carrier arms *t* supporting the shaft of the friction-roller are pivoted loosely, as stated, the said friction-roller is thereby enabled constantly to remain in contact with the block *a*, notwithstanding the gradual decrease of the diameter of the same, and thus to transmit the motion of such block in the manner above set forth.

Upon the periphery of the block, coated with paste in the present instance about halfway between the cutter *o'* and brush *s* a band of paper, canvas or the like *w*, supplied from

100

a roll w' , is arranged to take up its position the said roll w' being supported in arms or bearings c^3 with which the frame c is fitted for the purpose. It will be understood that, when the cutting or paring operation commences, the free end of the paper or canvas band must be pressed against the surface of the rotating block a , covered with adhesive material; this being done either by hand or by means of a special roller, so that perfect adhesion on commencing the cutting operation is insured. As, however, the rotation of the block continues the paper or fabric no longer requires the assistance of the hand or any auxiliary device for feeding it to the wood block a , as the latter is revolving, carries the paper or fabric round with it of its own accord, and owing to the resistance which the paper or other material offers to the rotation of the block tightly stretches it and makes it closely adhesive to its periphery. It has been ascertained by experiment that wood blocks may, by the means herein described, be cut up into a continuous band or leaf not exceeding one-thirtieth of a millimeter in thickness, which may be used, as a veneer, for covering furniture, walls or the like.

What I claim is—

1. A process of manufacturing veneers with back linings or supports for wainscoting, cabinet-making or similar purposes, which consists in cutting or paring off a thin continuous strip or veneer from a revolving wood block, to the surface of which block, a continuous band of paper or fabric is previously pasted, the width of such band being at least equal to that of the veneer which is being cut, so that the veneer, as it forms, is di-

rectly stiffened by the lining of paper, canvas or the like pasted to its back surface, substantially as described.

2. In a machine for the manufacture of veneers with back-linings or supports for wainscoting, cabinet-making or similar purposes, the combination with supporting centers for the revolving wood block a of a vertically guided receptacle p having a sieve-bottom p^2 and being filled with adhesive material or paste and connected to the cutter-carrier o by means of straps or bands r passing over guide-rollers g , substantially as and for the purpose as specified.

3. In a machine for the manufacture of veneers with back linings, for wainscoting cabinet making or similar purposes the combination with supporting centers for the revolving wood block a of a vertically guided receptacle p having a sieve-bottom p^2 and being filled with adhesive material or paste and connected to the cutter-carrier o by means of straps or bands r passing over guide rollers g , of a revolving brush s adapted to evenly spread the oozing paste upon the wood block, and of a movably suspended friction roller u resting upon and against the latter and being capable to impart the motion of the revolving wood block to the said brush s , all substantially as described and for the purpose set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 20th day of May, 1893.

GUSTAV ADOLPH ONCKEN.

Witnesses:

ALEXANDER SPECHT,

HARRY FRIEDRICH WILHELM GRETHE.