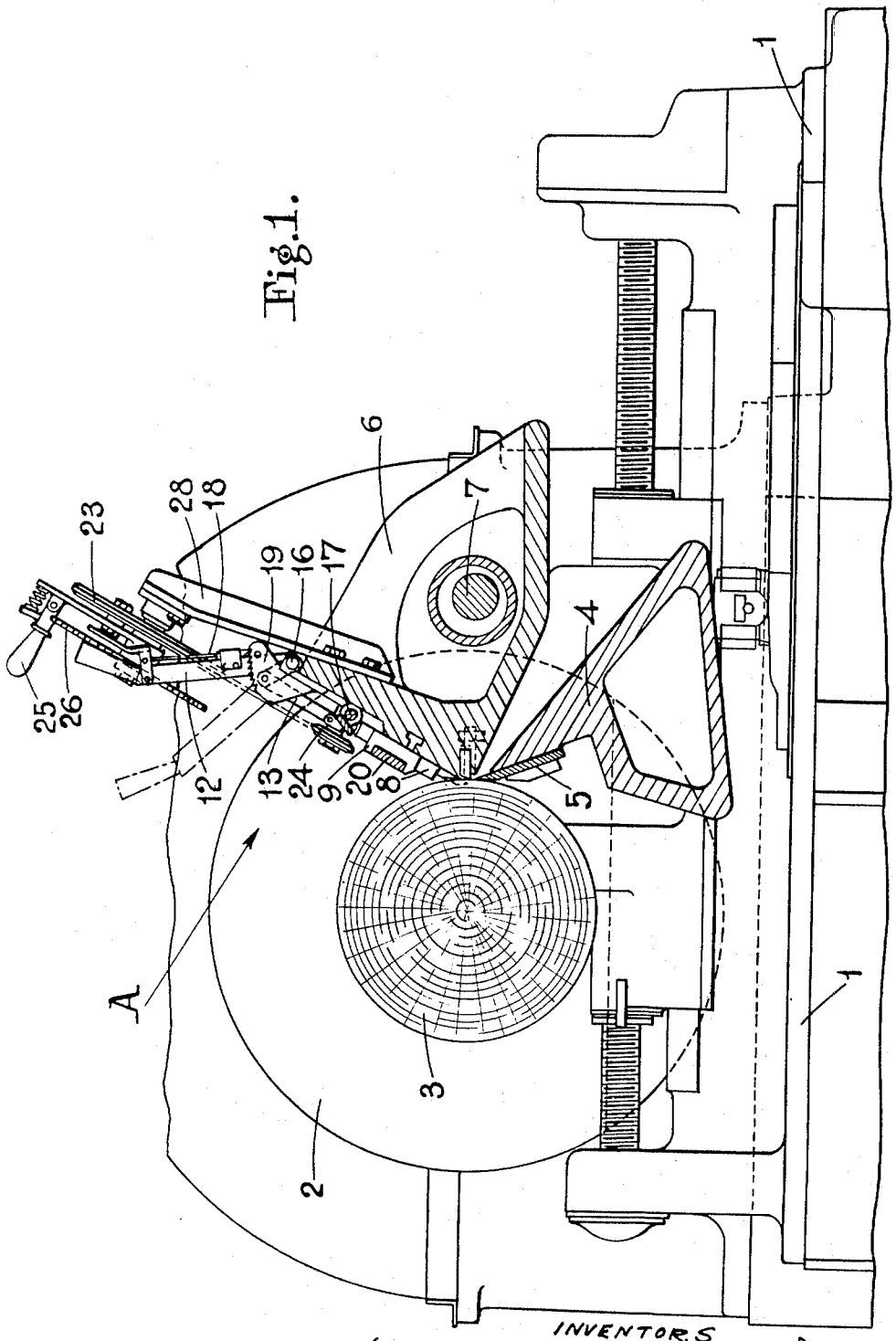
Oct. 18, 1955 J. T. BUSH ET AL 2,720,898

VENEER LATHES

Filed Dec. 3, 1952 2 Sheets-Sheet 1

Fig.1.



INVENTORS
JOHN T. BUSH
LESLIE A. W. JENKINS
By Cushman Darby & Cushman
Atty's

Oct. 18, 1955 J. T. BUSH ET AL 2,720,898

VENEER LATHES

Filed Dec. 3, 1952 2 Sheets-Sheet 2

Fig.2.

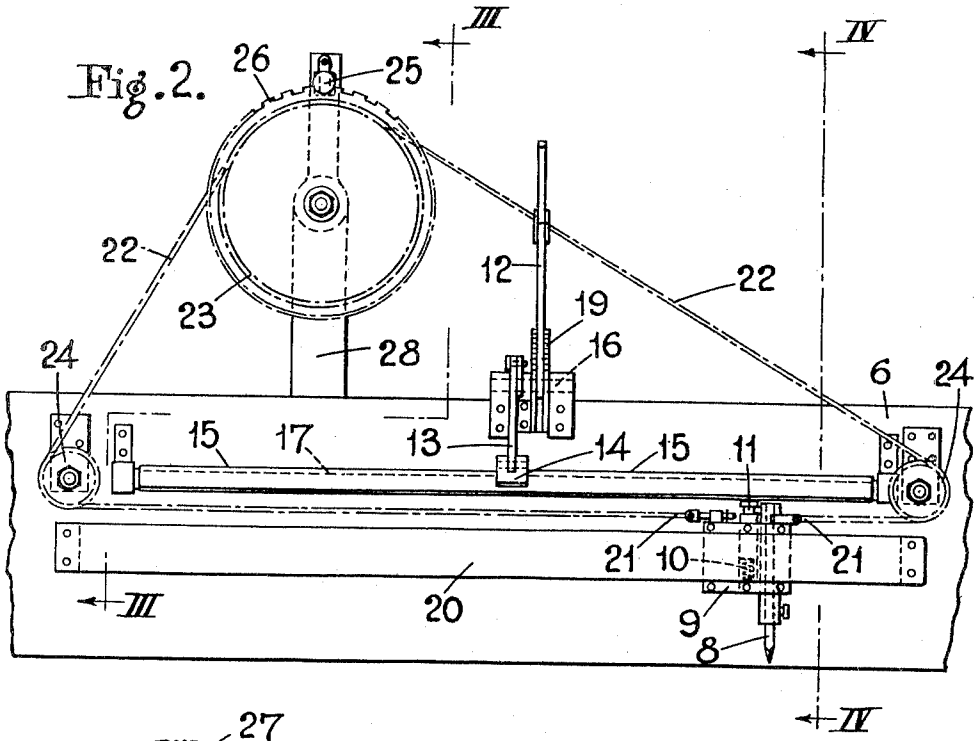


Fig.3.

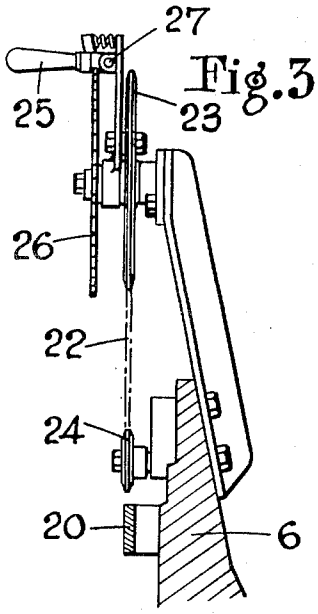
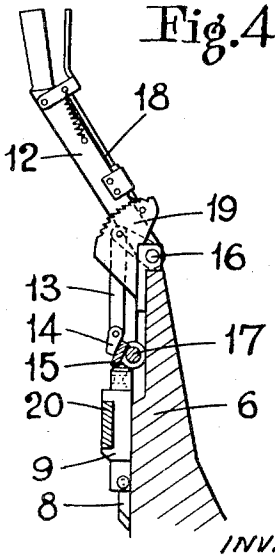


Fig.4.



INVENTORS
JOHN T. BUSH
LESLIE A. W. JENKINS
By Emery L. Ott Atty.

United States Patent Office 2,720,898 Patented Oct. 18, 1955

2,720,898

VENEER LATHES

John Thomas Bush, South Woodford, London, and Leslie Augustus Westover Jenkins, Putney, London, England

Application December 3, 1952, Serial No. 323,776

6 Claims. (Cl. 144—215)

This invention relates to veneer lathes and has particular reference to the construction and operation of the spur knives used for edge trimming or other longitudinal cutting of the veneer as it is cut off the log. These spur knives are mainly employed for removing outside margins where the wood is blemished owing to shakes or clefts in the log, and generally to ensure continuous parallel longitudinal edges on the sheet of veneer determining the width of the sheet.

Hitherto the spur knives, one at each side between the lathe centres, have been bolted to the working head structure of the machine which feeds the veneering knife, and as occasion necessitates (such as when a shake varies in the extent to which it encroaches into the length of the log at different distances from the centre axis) the bolts are loosened and the spur knife shifted along its carrying structure, after which it is re-bolted in its new position.

The object of the invention is to facilitate the adjustment of the spur knife, and enable this adjustment to be quickly carried out without recourse to loosening and refixing bolts or equivalent securing means.

According to the said invention a veneer lathe is provided with a spur knife carriage mounted in a slideway on part of the working head structure so as to be adjustable on the structure parallel with the axis of the lathe centres, in combination with means remote from the carriage to shift it along the said slideway, and means to move the knife in the carriage to and from the workpiece.

In order that the said invention may be readily understood an embodiment will be described, by way of example, with the aid of the accompanying drawings in which:

Figure 1 is a sectional side view of a lathe to which the invention has been fitted;

Figure 2 is a face view of part of the working head carrying the invention, looking in the direction of arrow A in Figure 1; and

Figures 3 and 4 are respectively sections on the lines III and IV of Figure 2.

Referring to Figure 1, a typical veneer lathe is depicted comprising a bed **1**, a driving gear casing **2**, from which one of the lathe centres extends to carry the log **3**, and a working head comprising the veneering knife casting **4** and its knife **5**, and the pressure casting **6** which is eccentrically adjustable about the shaft **7** in relation to the lower casting **4**, as well known. The complete working head including the two main castings **4** and **6** is arranged to be fed to and from the workpiece **3**.

At each side of the pressure casting **6** there is mounted a spur knife **8** in a carriage **9**, and the knife is adapted to be slidably pressed through the carriage into the log against the resistance of a compression spring **10** to provide edge trimming or other longitudinal cutting of the veneer to be cut off the log. In the illustrated example (see Figure 2) the spur knife **8** is fixed to and alongside a spring plunger **11** associated with the said spring **10** so that the knife can rise and fall with the plunger. The

working head member **6** is adjusted so that the knife **8** penetrates the workpiece a requisite distance when it has been pushed into its operative position by pressure on the plunger **11**.

To press the spur knife **8** into its operative position, a hand lever **12** is employed. This is pivoted to the pressure casting **6** at **16** and is linked at **13** to a plate **14** secured to a cam bar **15**. The latter is fixedly carried on a shaft **17** rotatable on the relatively fixed structure **6** parallel to the slideway bar **20** hereinafter described. When the hand lever **12** is pulled down, the lower edge of the cam bar **15** is moved down as the shaft **17** partially rotates sufficiently to press on the spring plunger **11** to push the spur knife into its operative position. The lever **12** has a locking catch **18** working on a toothed quadrant **19**. By releasing the catch **18** the knife is permitted to retract from the workpiece. A single operating lever **12** may be employed to control two spur knives **8**, i. e. one at each side of the lathe.

The carriage **9** is adapted to be slidably adjusted to a requisite position across the working head, and for this purpose is mounted in a slideway formed between a bar **20** and the face of the head member **6**, the slideway lying parallel with the axis of the lathe centres. The carriage **9** is secured to the ends **21** of a cable **22** passing around an operating wheel **23** carried by a bracket **28** and thence around guide wheels **24**. The wheels **23** and **24** may be grooved pulleys when a wire, leather or other cable is employed, or they may be toothed wheels if a chain is used in place of a cable. The operating wheel **23** is turned by a handle **25** secured thereto, and this causes the cable to pull the spur knife carriage towards one or other end of the slideway according to the direction of rotation of the wheel.

To lock the wheel **23** in a selected position there is combined therewith a fixed toothed edge disc **26** coaxial with the wheel, and the handle **25** is pivoted at **27** and made with a knife edge to take between a selected pair of teeth on the disc **26**. The disc is preferably furnished with graduations corresponding with the teeth which indicate the position of the spur knife and its distance from another spur knife on the other end of the working head member **6**.

In a modification the wheel **23** may be operated by power, e. g. by a hydraulically operated piston under the control of the operator at any convenient position.

In operation, the spur knife **8**, or each of a pair of spur knives, is adjusted along the axis of the pair of lathe centres to remove the required outside margin of the veneer being cut by releasing the handle **25** from the fixed toothed edge disc **26**, thereby releasing the operating wheel **23** for rotation by the handle **25**. Such rotation of the operating wheel **23** causes the cable **22** to pull the spur knife carriage **9** towards one or other end of the slideway **20** according to the direction of rotation of the wheel **23**. When the spur knife has been brought to its required position along the axis of the lathe centres, the handle **25** is again engaged with the fixed toothed edge disc **26** to positively lock the spur knife in such position. The spur knife is then brought into engagement with the workpiece by releasing the locking catch **18** from the toothed quadrant **19** and pulling down the lever **12** to rotate the cam bar **15** whereby the plunger **11** is moved against the action of the compression spring **10** to push the spur knife into its operative position, the locking catch **18** again being allowed to engage the toothed quadrant **19**. Conversely, when it is required to withdraw the spur knife from its operative position, the locking catch **18** is released from the toothed quadrant **19** and the lever **12** is raised, thereby rotating the cam bar **15** and allowing the compression spring **10** to withdraw the

plunger **11** and spur knife away from the workpiece, the locking catch **18** again being engaged with the toothed quadrant **19'**.

We claim:

1. A veneer lathe including a working head structure, a slideway on part of said structure, a spur knife carriage mounted in said slideway so as to be adjustable on the working head structure in a direction parallel with the axis of the lathe centres, in combination with manually controllable means remote from the carriage to shift it along the said slideway, manually releasable means for securing said carriage in any required position to which it has been adjusted along said axis, and means to move the knife in the carriage to and from the workpiece carried between the lathe centres.

2. A veneer lathe including a working head structure, a slideway on part of said structure, a spur knife carriage mounted on said structure so as to be adjustable on the working head structure in a direction parallel with the axis of the lathe centres, in combination with a manually controllable operating wheel carried by the working head structure, guide wheels located respectively near the ends of the slideway, a cable having its ends secured to the said spur knife carriage and passing around said operating wheel and thence around the side guide wheels, said cable being adapted to pull the spur knife carriage towards one or other end of the slideway according to the direction of rotation of the operating wheel, a fixed toothed edge disc mounted coaxially with the operating wheel, a handle adapted to be locked between a selected pair of the disc teeth to secure said carriage in any required position to which it has been adjusted along said axis, and means to move the knife in the carriage to and from the workpiece carried between the lathe centres.

3. A veneer lathe according to claim 2, wherein there are two spur knife carriages and their respective knives mounted on the working head structure, and wherein the fixed toothed edge disc is furnished with graduations indicating the distance between the two spur knives.

4. A veneer lathe including a working head structure, a slideway on part of said structure, a spur knife carriage mounted in said slideway so as to be adjustable on the working head structure in a direction parallel with the axis of the lathe centres, in combination with driving means remote from the carriage to shift it along the said slideway, said driving means being manually controllable, manually releasable means for securing said carriage in any required position to which it has been adjusted along said axis, and means to move the knife in the carriage to and from the workpiece carried between the lathe centres.

5. A veneer lathe according to claim 2, wherein the means for moving the spur knife in the carriage to and from the workpiece carried between the lathe centres comprises a cam bar mounted on the working head structure parallel with the slideway, a plunger connected to the spur knife, a spring to press the plunger against the cam bar, and means to rotate the cam bar to press the knife on to the workpiece against the action of said spring.

6. A veneer lathe according to claim 2, wherein the means for moving the spur knife in the carriage to and from the workpiece carried between the lathe centres comprises a cam bar mounted on the working head structure parallel with the slideway, a plunger connected to the spur knife, a spring to press the plunger against the cam bar, and means to rotate the cam bar to press the knife on to the workpiece against the action of said spring, a hand lever pivotally mounted on the working head structure and linked to the cam bar to bring about rotation of the latter, and co-operating latch elements on the working head structure and hand lever to retain the latter in an adjusted position.

References Cited in the file of this patent

UNITED STATES PATENTS

113,651	Gray, Jr.	Apr. 11, 1871
1,655,348	Wester	Jan. 3, 1928
1,849,928	Huestis	Mar. 15, 1932
2,328,545	Bukowsky	Sept. 7, 1943
2,634,772	Dell, Jr. et al.	Apr. 14, 1953