No. 859,466 PATENTED JULY 9, 1907.

A. W. SILVIS & F. A. DUDLEY.

SANDING ATTACHMENT FOR LATHES.

APPLICATION FILED AUG. 11, 1906.

3 SHEETS—SHEET 1.

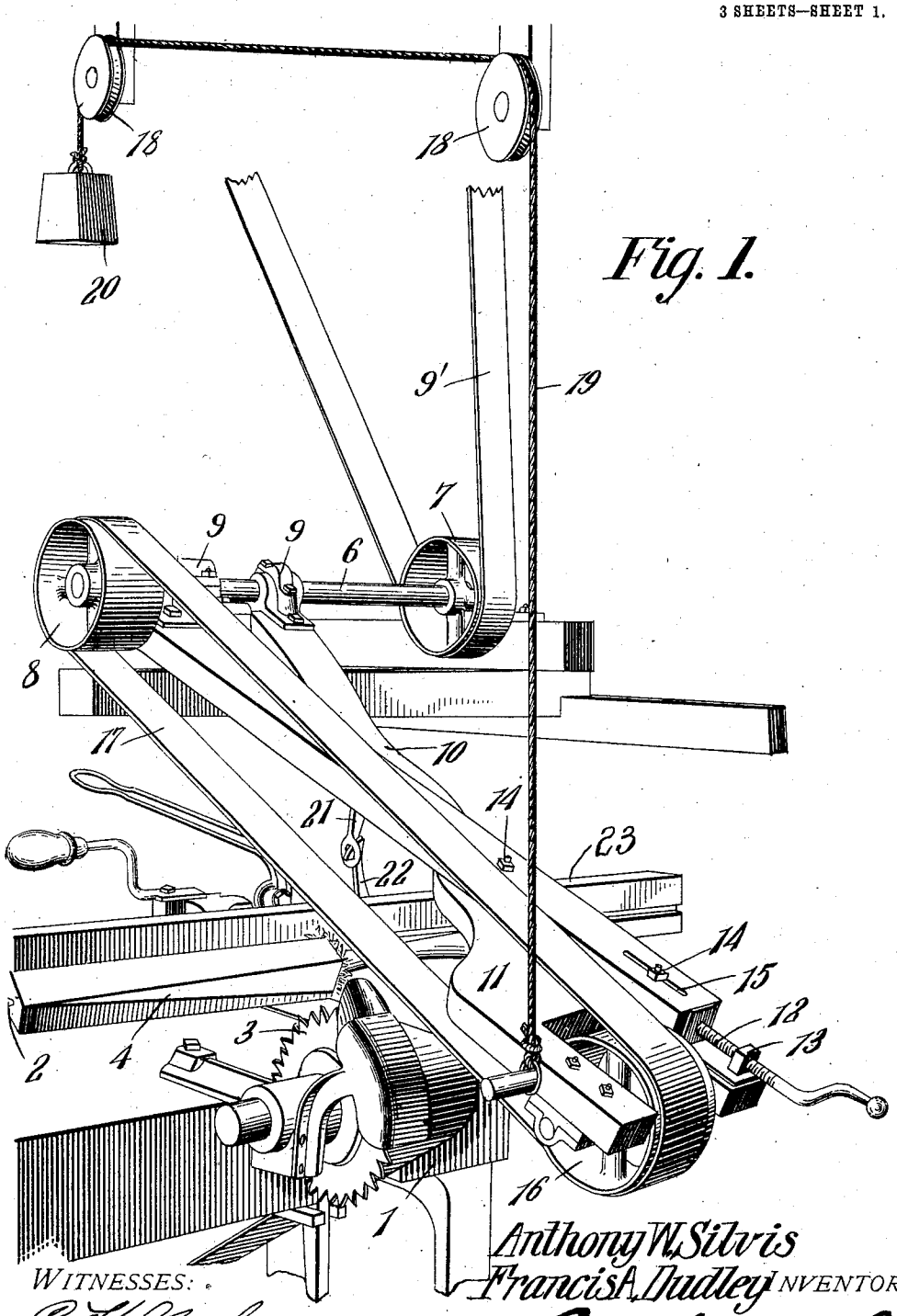


Fig. 1.

WITNESSES:

E. F. Clement

Edmund Peters

Anthony W. Silvis
Francis A. Dudley INVENTORS

By C. A. Snow & Co.

ATTORNEYS

THE NORRIS PETERS CO., WASHINGTON, D. C.

No. 859,466. PATENTED JULY 9, 1907.

A. W. SILVIS & F. A. DUDLEY.

SANDING ATTACHMENT FOR LATHES.

APPLICATION FILED AUG. 11, 1906.

3 SHEETS—SHEET 2.

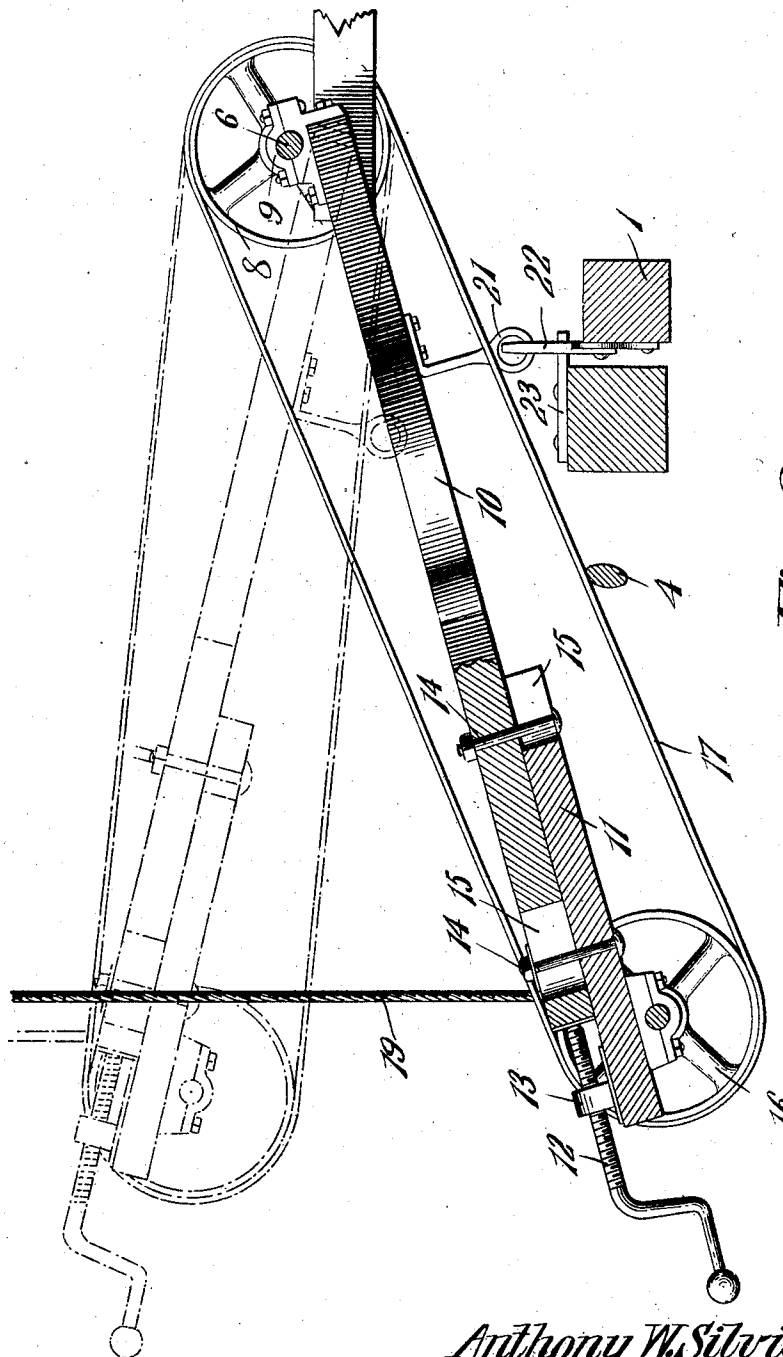


Fig. 2.

WITNESSES:

E. J. Stewart

E. Brunn Allen

Anthony W. Silvis

Francis A. Dudley INVENTORS

By C. A. Snow & Co.

ATTORNEYS

THE NORRIS PETERS CO., WASHINGTON, D. C.

No. 859,466.

PATENTED JULY 9, 1907.

A. W. SILVIS & F. A. DUDLEY.

SANDING ATTACHMENT FOR LATHES.

APPLICATION FILED AUG. 11, 1906.

3 SHEETS—SHEET 3.

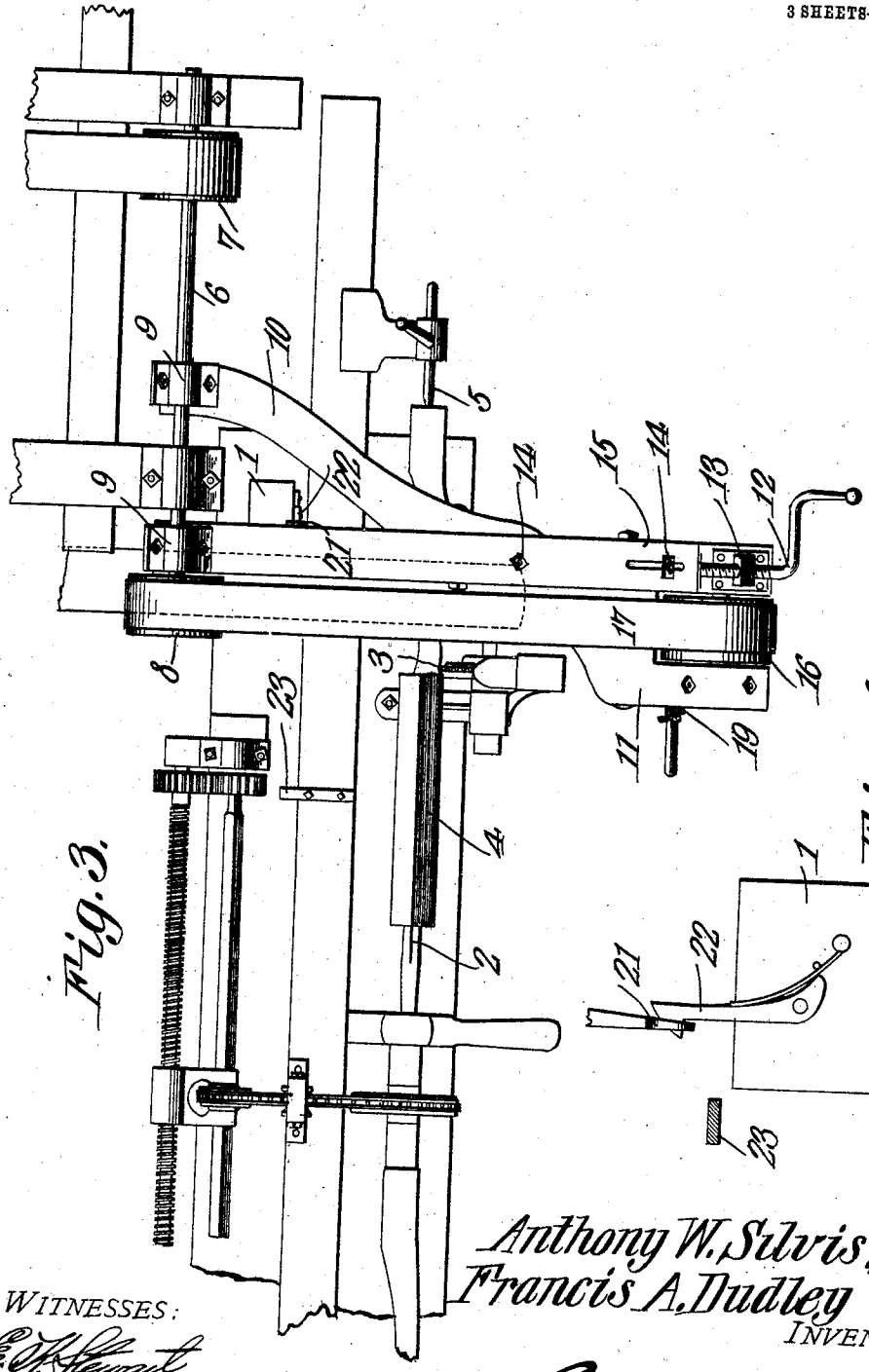


Fig. 3.

Fig. 4.

WITNESSES:

E. J. Stewart

M. E. Colbie.

Anthony W. Silvis and Francis A. Dudley INVENTORS

By C. A. Snow & Co.

ATTORNEYS

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ANTHONY W. SILVIS AND FRANCIS A. DUDLEY, OF DUTTON, ARKANSAS.

SANDING ATTACHMENT FOR LATHES.

No. 859,466. Specification of Letters Patent. Patented July 9, 1907.

Application filed August 11, 1906. Serial No. 330,260.

To all whom it may concern:

Be it known that we, ANTHONY W. SILVIS and FRANCIS A. DUDLEY, citizens of the United States, residing at Dutton, in the county of Madison and State of Arkansas, have invented a new and useful Sanding Attachment for Lathes, of which the following is a specification.

This invention has relation to work sanding attachments for lathes and it consists in the novel construction and arrangement of its parts as hereinafter shown and described.

The object of the invention is to provide an attachment of the nature as stated which is adapted to operate just behind the cutting tool and, as the work is formed into shape, the sanding attachment comes in contact with the surface and finishes and polishes the same. When the work is passed to its fullest extent through the lathe and the cutting tool ceases to operate upon the same, a trip means is provided which is actuated and automatically moved whereby the frame of the sanding attachment is released and a counterbalance weight comes into play which swings the sanding attachment up and away from the work so that the completed article may be readily removed from the lathe and the lathe reset and a rough stick placed therein and the cutting and sanding operation above alluded to is repeated.

The primary object of the invention is to provide a sanding attachment for lathes which operates upon the work just behind the cutting tool and which automatically swings out of the way at the end of the work.

In the accompanying drawing: Figure 1 is a perspective view of a portion of a lathe with the sanding attachment applied thereto and showing the work elevated out of engagement with the saw. Fig. 2 is a side elevation partly in section of the sanding device. Fig. 3 is a top plan view of the lathe showing the saw and sanding device in engagement with the work, and Fig. 4 is a detail side elevation of a means for holding the sanding device in contact with the work.

The lathe 1 is of usual construction and is provided with the ordinary reciprocating work holding live center 2. The cutting tool such as a saw or other implement 3 is suitably mounted upon the lathe 1. The work 4 is held between the live center 2 and the center point 5 of the lathe. The countershaft 6 is journaled for rotation above the lathe 1. The said shaft is provided at one end with the belt pulley 7 and at its other end, with the belt pulley 8. The belt 9′ rotates the pulley 7 and the shaft 6. The bearings 9, 9 are located upon the shaft 6.

The rear end of the frame 10 is bifurcated and is bolted or otherwise secured to the bearings 9, 9. The block 11 is attached to the forward end of the frame 10 and extends laterally with relation to the same. Said block may be moved longitudinally with relation to the frame 10 by means of the screw shaft 12 which bears at its end against the end of the frame 10 and passes through an internally threaded eye 13 located upon the said block 11. When the said block is properly positioned with relation to the frame 10, it is secured in such position by means of the bolts 14 which pass through the elongated slots 15 in the frame 10. The pulley 16 is suitably journaled for rotation in the block 11. The said pulley is alined with the pulley 8 attached to the shaft 6. The sand belt 17 passes around the pulleys 8 and 16. The pulleys 18, 18 are suitably supported at elevated points away from the lathe and the sanding attachment. One end of the tackle 19 is secured either to the block 11 or the free end of the frame 10 and passes over the said pulleys 18, 18 and is attached at its other end to the counterbalance weight 20.

The depending eye 21 is attached to the under side of the frame 10. The spring actuated catch 22 is pivoted to the frame of the lathe 1 and has its upper end beveled and located in the path of the eye 21. When the free end of the frame 10 is swung down, the said catch 22 automatically engages the eye 21 and holds the frame down against the lifting tendency of the counterbalance weight 20 and its connections.

The lug 23 is attached to the reciprocating part of the lathe 1 and the said catch 22 is in the path of the said lug. Consequently, when the said lug in its lateral movement comes in contact with the catch 22, it disengages the end of the said catch from the eye 21 and in response to the lifting tendency of the counterbalance weight 20 and its attachments, the free end of the frame 10 is swung up out of the way and away from the work 4. The sanding belt 17 operates upon the work 4 just behind the tool 3. As the work passes over the said cutting tool, it is roughed out into shape and the sanding belt moving over the surfaces previously roughed out, finishes the same into final shape. As the end of the work passes over the cutting tool and under the sanding belt, the lug 23 engages the catch 22 when the sanding belt and its attachments swing up out of the way as above described. By adjusting the block 11 with relation to the frame 10, proper tension of the sanding belt 17 is maintained.

Having described our invention, what we claim as new and desire to secure by Letters Patent is:—

1. A sanding attachment for lathes consisting of a belt moving transversely with relation to the work, a swinging frame supporting said belt, a catch attached to a part of the lathe and engaging said frame, a lug attached to a movable part of the lathe and adapted to trip said catch, and a counterbalance weight connected with the frame for swinging the same.

2. A sanding attachment for lathes consisting of a belt moving transversely with relation to the work, a frame supporting said belt, a shaft supporting said frame and having a pulley which moves the belt, a catch member attached to a fixed part of the lathe and adapted to engage said frame, a lug attached to a movable part of the lathe and adapted to trip said catch, and a counterbalance weight connected with the frame and adapted to swing the same when liberated from the catch member.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

ANTHONY W. SILVIS.
FRANCIS A. DUDLEY.

Witnesses:
O. W. SMITH,
M. S. MARKLEY.