

W. P. TIPPIT.  
FAN FOR SEWING MACHINES AND THE LIKE.  
APPLICATION FILED NOV. 21, 1908.

932,832.

Patented Aug. 31, 1909.  
2 SHEETS—SHEET 1.

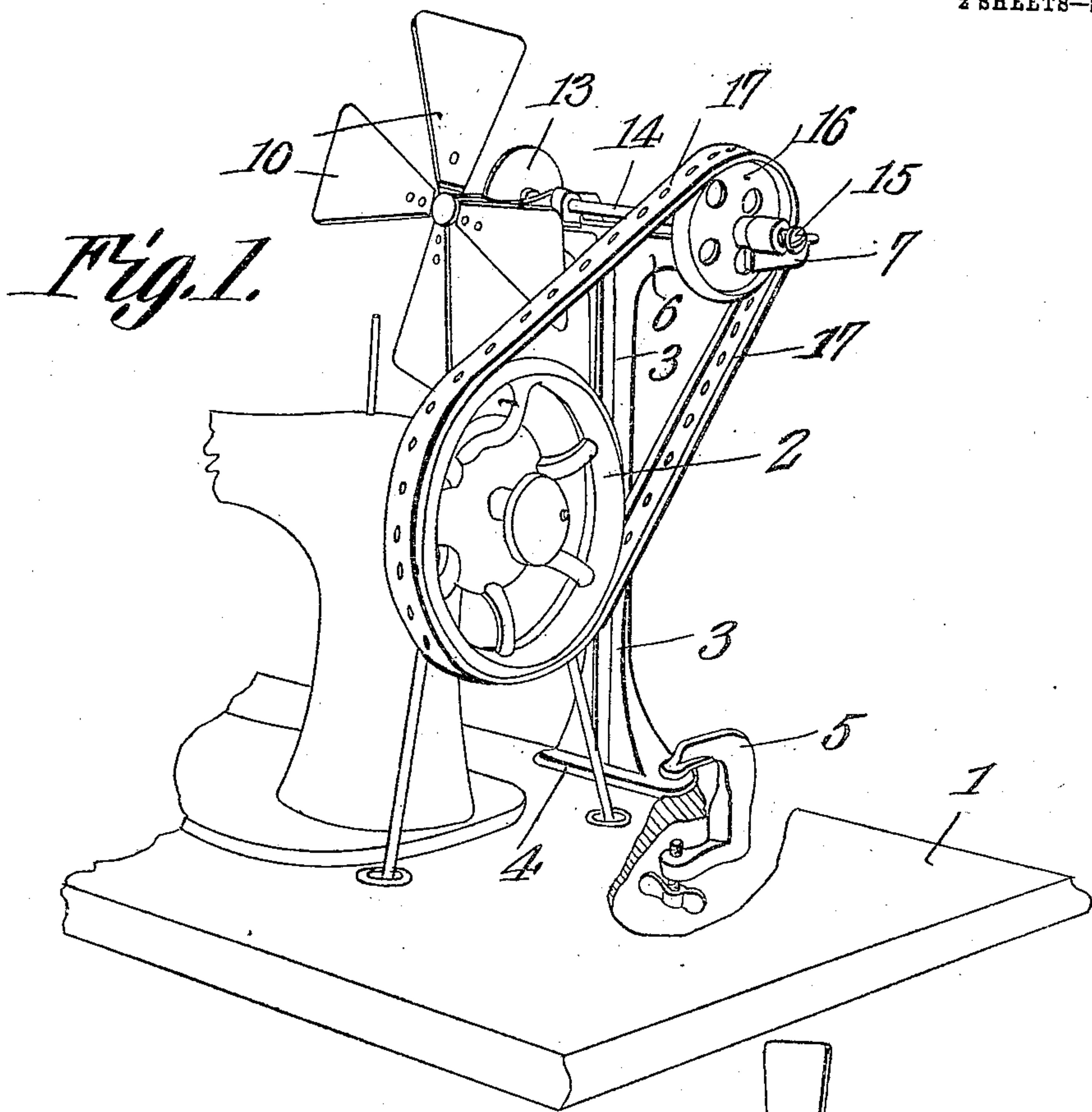


Fig. 4.

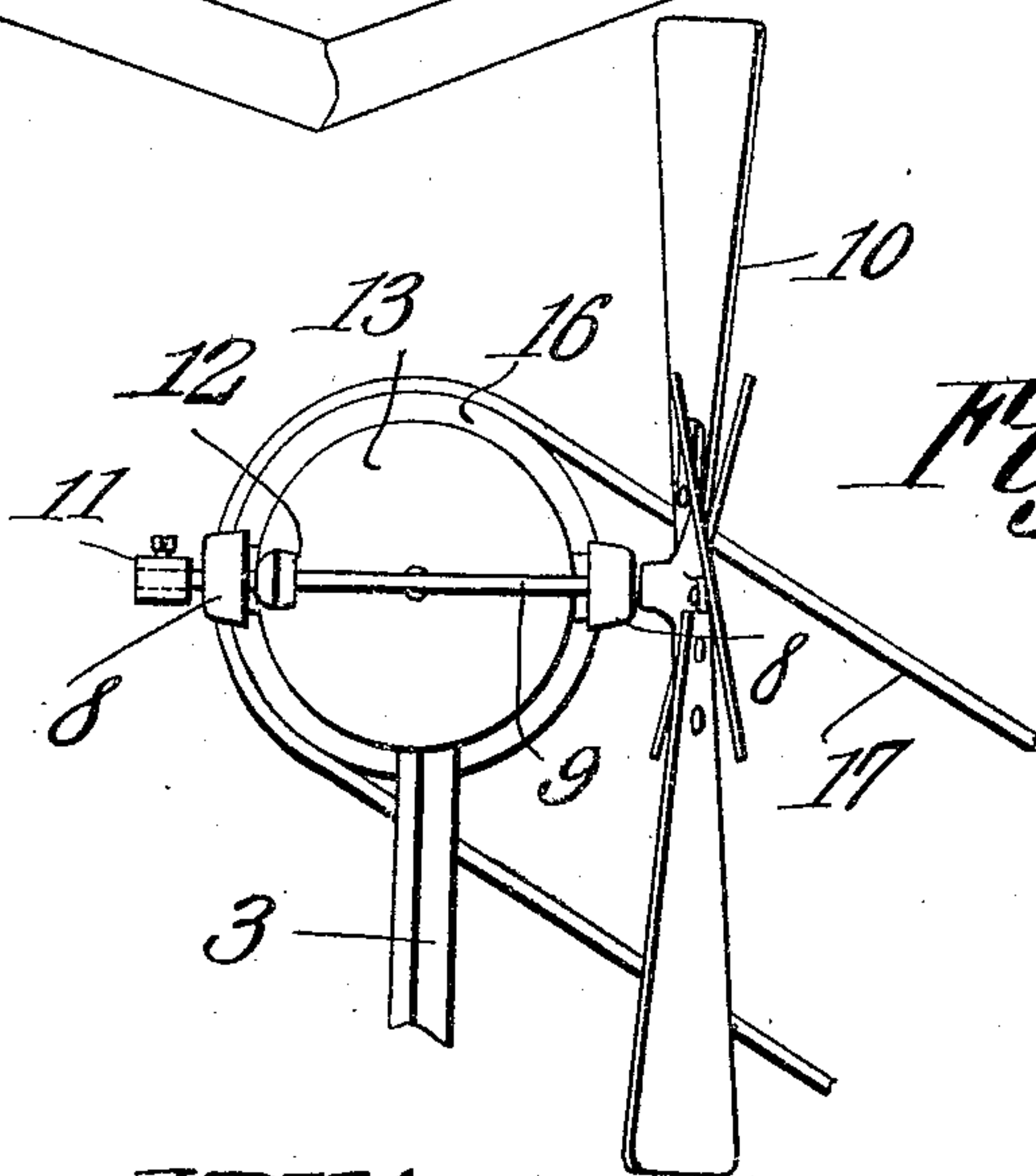
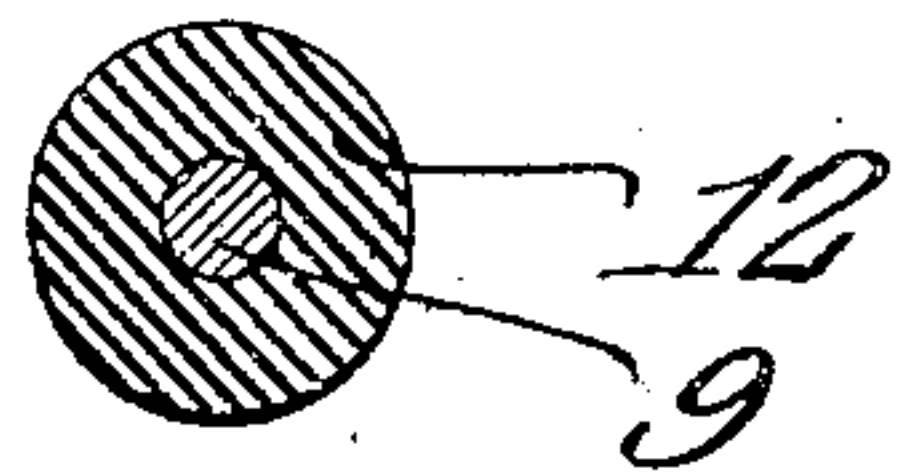


Fig. 3.

Witnesses

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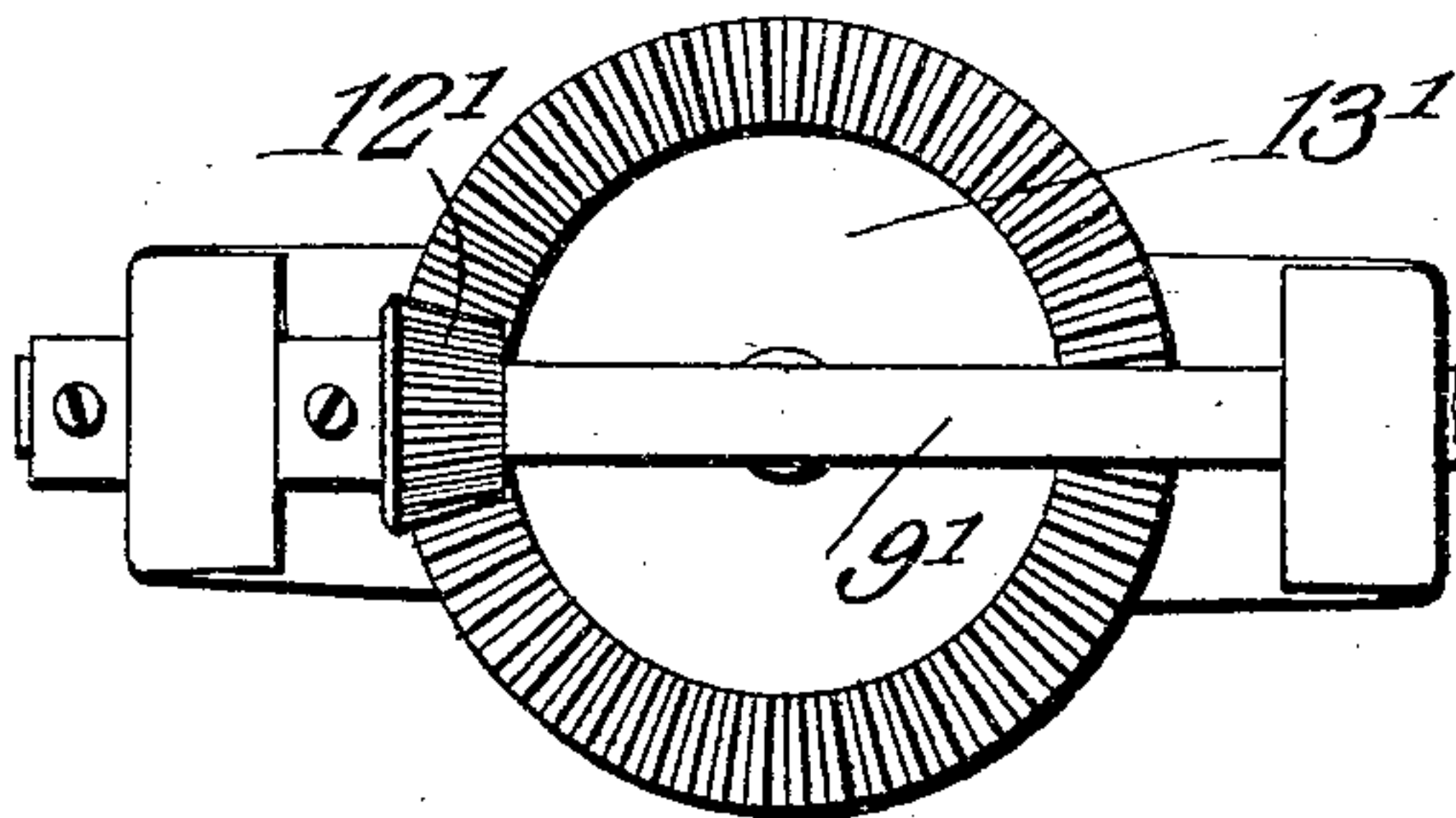
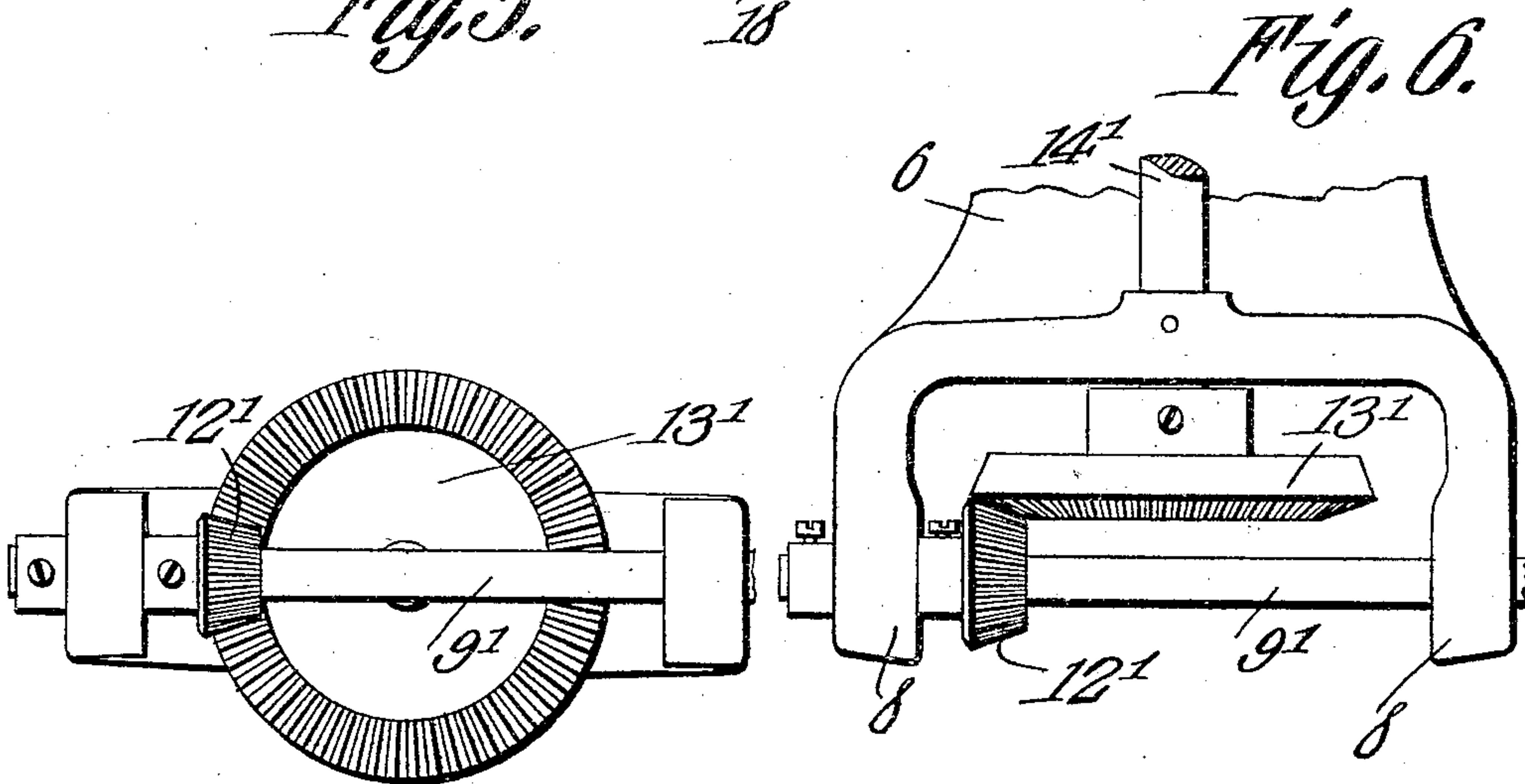
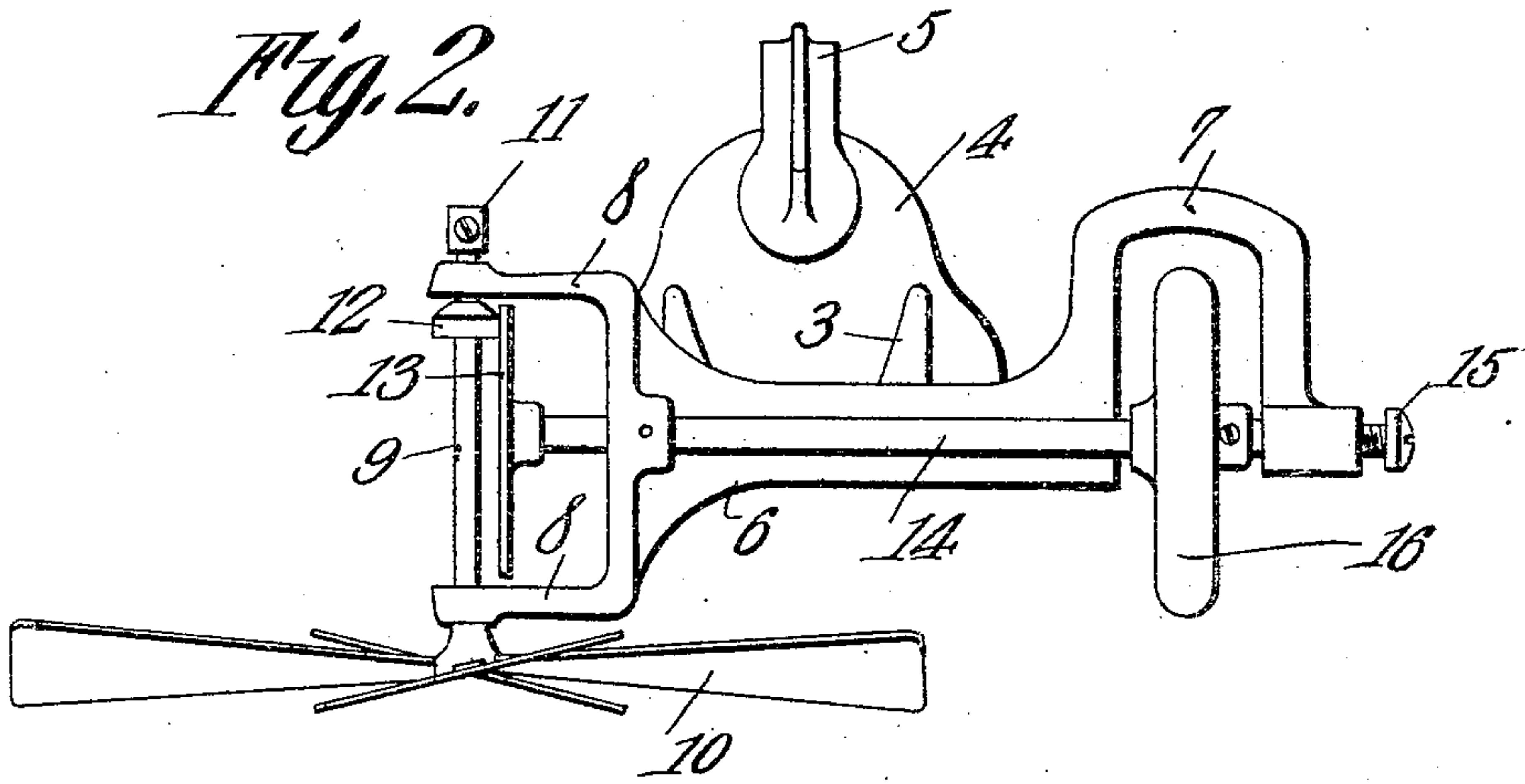
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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

WILLIAM PHILIP TIPPIT, OF FAYETTE, MISSOURI.

FAN FOR SEWING-MACHINES AND THE LIKE.

932,832.

Specification of Letters Patent.

Patented Aug. 31, 1909.

Application filed November 21, 1908. Serial No. 463,830.

*To all whom it may concern:*

Be it known that I, WILLIAM PHILIP TIPPIT, a citizen of the United States, residing at Fayette, in the county of Howard and State of Missouri, have invented a new and useful Fan for Sewing-Machines and the Like, of which the following is a specification.

This invention relates to fan attachments for sewing machines and the like and its object is to provide a device of this character designed to be used in connection with sewing machines of different makes without requiring any alteration or addition to the machine or its supporting structure.

Another object is to provide a fan attachment, which, when set up, will direct a blast of air on to the machine operator and without disturbing any fabrics being sewed.

A further object is to provide a fan attachment which can be readily used in connection with a sewing machine, the balance wheel of which runs either backward or forward, the balance wheel in every instance, constituting the drive wheel of the attachment.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a perspective view of a portion of a sewing machine embodying the present improvements, the fan attachment being shown in position thereon. Fig. 2 is a plan view of the attachment. Fig. 3 is a side elevation of the upper portion thereof. Fig. 4 is a transverse section through the adjustable friction gear. Fig. 5 is a transverse section through one ply of the belt. Fig. 6 is a plan view of a portion of a modified form of fan attachment. Fig. 7 is a side elevation of the parts shown in Fig. 6.

Referring to the figures by characters of reference 1 designates the top of the supporting structure of the sewing machine, and 2 designates the balance wheel of said machine, this wheel being designed to be actuated in any suitable manner and constituting a part of all the well known types of foot-actuated machines. The attachment constituting the present invention consists of

a standard 3 extending from a base-plate 4 designed to rest upon the top 1 adjacent the rear edge thereof, any suitable means, such as a separate clamp 5 being utilized for securing the plate 4 upon the top 1.

A head 6 is formed at the upper end of the standard, and is provided at one end with a yoke 7, while parallel arms 8 extend from the other end of the said head, said arms constituting bearings for a shaft 9, to the front end of which is secured a fan 10 of the ordinary blower type. A retaining collar 11 is secured upon the back end of the shaft 9 and a friction disk 12 preferably formed of rubber is slidably mounted on the shaft 9, but fits sufficiently tight upon the shaft to prevent accidental displacement of the disk. Said disk contacts with one face of a larger friction disk 13 secured to one end of a shaft 14, extending longitudinally of the head 6 and bearing at one end against the head and between the arms 8 and at its other end in one arm of the yoke 7, there being a screw 15 mounted within said arm and constituting means for shifting the shaft 14 longitudinally to take up wear between the two friction members 12 and 13. A wheel 16 is secured to shaft 14 and mounted to rotate within the yoke 7, the rim or periphery of the said wheel being concave transversely and engaged by a belt 17. This belt is preferably formed of leather and has its edge portions intumed and sewed as indicated at 18 in Fig. 5, there also being apertures within the middle portion of the belt to facilitate the gripping action of the belt upon the wheels of the mechanism. By stiffening the edges of the belt in the manner shown in Fig. 5 said belt assumes a curved or bowed transverse contour and thus firmly grips the rounded rim of the wheel 16 and also the correspondingly rounded rim of the balance wheel 2. There is therefore no danger of the belt leaving the wheels during the operation of the attachment, and increased gripping surfaces are presented to the wheels and slipping thus reduced to the minimum.

The attachment here described is designed to be placed upon the market complete and ready for attachment to different forms of sewing machines and the like. When it is desired to use said attachment it is placed with the base plate 4 upon the top 1 of the machine and the belt 17 is extended around the balance wheel 2 of the machine. The



standard 3 and plate 4 are then adjusted away from the balance wheel so as to render the belt 17 taut whereupon the plate 4 is secured to the top 1 by means of the clamp 5. After the parts have thus been assembled the sewing machine can be operated in the usual manner and motion will be transmitted from the balance wheel 2 thereof through the belt 17 to wheel 16. The shaft 14 will thus be revolved and motion will be transmitted through the friction disks 13 and 12 to shaft 9, and the fan can thus be rotated so as to direct a current of air on to the operator. By providing this form of fan there is no danger of the fabrics which are being sewed, becoming disturbed by the air current. Should the working faces of the friction disks become worn it is merely necessary to shift the shaft 14 longitudinally by means of the screw 15. When it is desired to regulate the speed of the fan 10 the friction element is shifted along shaft 9 either toward or from the center of the disk 13. Should the machine be of that type in which the balance wheel rotates backwardly instead of forwardly the disk 12 can be shifted longitudinally on shaft 9 so as to contact with the opposite portions of the disk 13. The fan 10 can thus be caused to rotate in the proper direction.

Instead of utilizing friction gearing for actuating the fan, bevel gears may be employed as indicated in Figs. 6 and 7. In this construction the shaft 14' has a bevel gear 13' thereon which meshes with a smaller

gear 12' adjustably mounted on the shaft 9'. This shaft is the one to which the fan of the attachment is secured, and, when it is desired to change the gear so as to adapt the attachment for use in connection with a machine in which the balance wheel rotates backwardly, it is merely necessary to remove the shaft 9' from its bearings and to reverse the gear 12' and locate it so as to mesh with the opposite portion of gear 13'.

It is of course to be understood that various other changes may be made in the construction and arrangement of parts without departing from the spirit or sacrificing the advantages of the invention.

What is claimed is:—

The combination with a sewing machine including a balance or hand wheel, of a standard, a fan journaled thereon and having its axis disposed at right angles to the axis of the hand wheel, a shaft journaled upon the standard, variable speed gearing for transmitting motion from said shaft to the fan, a pulley upon the shaft, and a belt mounted upon the pulley and upon the periphery of the hand wheel for transmitting motion from said wheel to the pulley.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM PHILIP TIPPIT.

Witnesses:

D. J. BRIGGS,  
A. L. KIRBY.