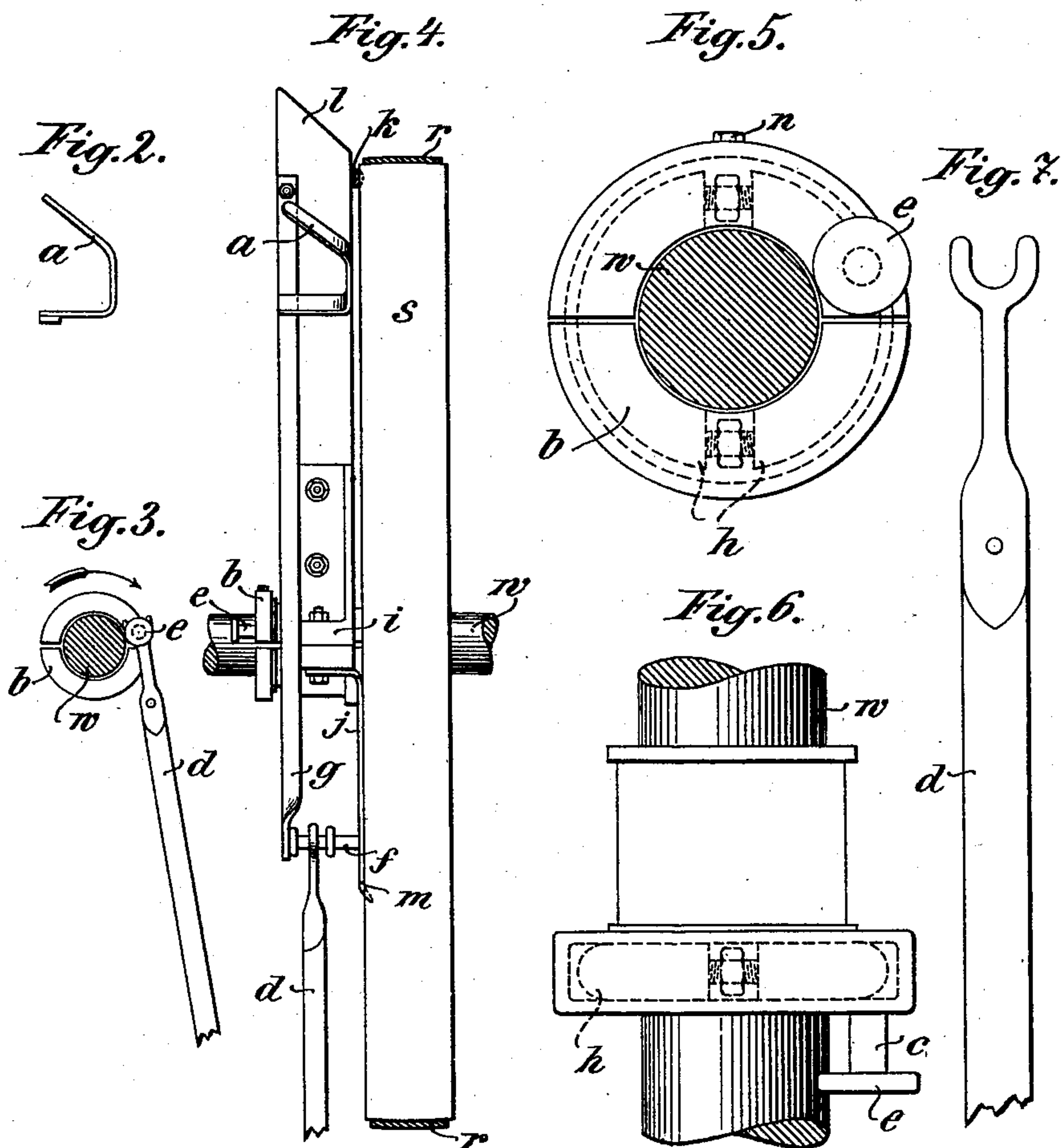


A. COULTER.
BELT ADJUSTER.

(Application filed Sept. 3, 1901.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses:
Horace C. Smith
Arthur J. Gamell

Inventor:
Andrew Coulter
by Marion Marion
his Attorney

UNITED STATES PATENT OFFICE.

ANDREW COULTER, OF MITAU, RUSSIA.

BELT-ADJUSTER.

SPECIFICATION forming part of Letters Patent No. 697,608, dated April 15, 1902.

Application filed September 3, 1901. Serial No. 74,122. (No model.)

To all whom it may concern:

Be it known that I, ANDREW COULTER, manager of spinning-works, a subject of His Majesty the King of Great Britain, residing at Regherstrasse 7, Mitau, in the Empire of Russia, have invented new and useful Improvements in Belt-Adjusters, of which the following is a clear and exact specification.

My invention relates to belt-adjusters, and more particularly to improvements in such a belt-adjuster, according to which a placing-on bar with a beveled end is provided with a bent arm swinging with its bent end closely past the periphery of the pulley and preventing the belt from slipping off at a certain place behind the beveled bar or between the same and that point where the belt runs onto the pulley. According to my invention a belt-adjuster of this type—such, for instance, as disclosed in British Patent No. 512 of 1901—is improved in such a manner that the rod suspended from the roof or ceiling to prevent the rotation of the sleeve of the belt-adjuster is dispensed with and that the outward projecting pin on the bent arm of the belt-adjuster and the belt-carrier for catching the belt are also dispensed with. All these parts have proved to be disadvantageous. The rod suspended from the roof or ceiling is detrimental to the manipulation of the device, the outward projecting pin is obstructive when making preparations for the readjustment of the removed belt, and the belt-carrier damages the belt and soon renders the same unfit for use.

According to the present invention the sleeve of the belt-adjuster is arrested by a pin with a broad head, which is arrested by a forked rod also adapted to actuate the inwardly-directed shifting pin of the belt-placing-on arm, which is of the shape of a bow carrying the bent arm. Furthermore, the beveled bar is provided with a short arm, which is situated in an opposite direction to the said bow and prevents the belt from slipping between the bar and pulley.

In the annexed drawings, Figure 1 is a side elevation of the pulley with, for instance, the belt running on at the top of the latter and the belt-adjuster, according to the invention. Fig. 2 is a detail side elevation of the bent arm of the belt-adjuster. Fig. 3 is a side ele-

vation of the sleeve of the belt-adjuster with pin and forked rod. Fig. 4 is the end elevation of Fig. 1. Figs. 5 and 6 are respectively side elevation and plan, on a large scale, of the sleeve shown in Fig. 3. Fig. 7 is a view of the forked rod on a large scale.

The beveled bar *l* of the belt-adjuster is secured to the two-part bearing *i* and is freely turnable on the shaft *w* in the usual manner by means of the sleeve *b*, arranged on the adjusting-ring *h*, Figs. 5 and 6. The sleeve *b* carries a pin *c*, with broad head *e*, which, as shown in Fig. 5, is of such a size that the belt *r* cannot pass between the edge of the head and the periphery of the shaft *w*. The bent arm *a*, which when adjusting the belt prevents the same from slipping behind the bar *l*, is attached to a narrow bow *g*, connected with a flat arm *j*, such arm being located with its end *m*, as shown in Fig. 4, inside the rim of the pulley *s*, and receiving one end of a pin *f*, whose other end is attached to the point of the bow *g* opposite to the bar *l*. After the adjustment of the belt the forked rod *d* is adapted for manipulating the belt-adjuster by arresting the pin *c*, and consequently the sleeve *b*, and in order to adjust the belt the rod *d* is adapted for manipulating the pin *f* with the belt-adjuster. Before the adjustment of the belt the bar *l*, with the arm *a*, bow *g*, pin *f*, and arm *j*, hangs loosely on the shaft *w*, and the slack belt is situated close to these parts on the shaft. In order to adjust the belt, it is moved from the side against the pulley and by means of the rod *d*, as shown in Fig. 1, the pin *f*, bow *g*, bar *l*, and arm *a* are swung upwardly, the belt being thereby forced by the bar *l* onto the pulley and prevented from slipping off by the arm *a*. As soon as the belt has assumed the position in Fig. 1—i. e., is adjusted—the pin *f* is released and the rod *d* held against the shaft *w*, as shown in Fig. 3, so that the pin *c* is caught in the fork of the rod *d* and the sleeve *b* prevented from further revolving with the shaft *w*. The bar *l* carries a short arm *k*, arranged in the revolving direction—i. e., in an opposite direction to the bow *g*. Such short arm *k*, as shown in Fig. 4, extends somewhat below the rim of the pulley *s* and prevents the belt *r* from slipping or passing between the pulley *s* and the bar *l*.

I do not claim as new the combination of the bar *l* with a bent arm attached thereto, but

What I claim, and wish to secure by Letters Patent, is—

5 1. In a belt-adjuster, the combination with a drive-shaft; and an adjusting-ring thereon; of a two-part sleeve on said ring and freely turnable on said shaft; a pin having an enlarged head, mounted on said sleeve, said
10 head extending to the periphery of the shaft; a beveled bar carried by said sleeve; and a bifurcated rod adapted to engage with said pin.

2. In a belt-adjuster, the combination with
15 a drive-shaft, and an adjusting-ring thereon; of a two-part sleeve on said ring, and freely turnable on said shaft; a headed pin on said sleeve, the head extending to the periphery of the shaft; a beveled bar carried by said
20 sleeve; an arm-carrying bow attached to said

bar, said bow having an arm bent toward the pulley; a connecting-arm, connecting said sleeve with the free end of said bow; and a bifurcated rod adapted to engage with said pin.

3. In a belt-adjuster, the combination with
25 a drive-shaft; of a beveled bar freely turnable on said shaft; an arm-carrying bow attached to said bar and having an arm bent toward the pulley; and an arm extending from the
30 opposite face of said bar from said bow, said latter arm having its end within the rim of the pulley.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ANDREW COULTER.

Witnesses:

PERCY MOPLINGER,
ADALBERT HÖPKER.