(No Model.)

R. J. LA GRANGE.

JEWELRY RING.

No. 263,920. Patented Sept. 5, 1882.

Fig. 1.

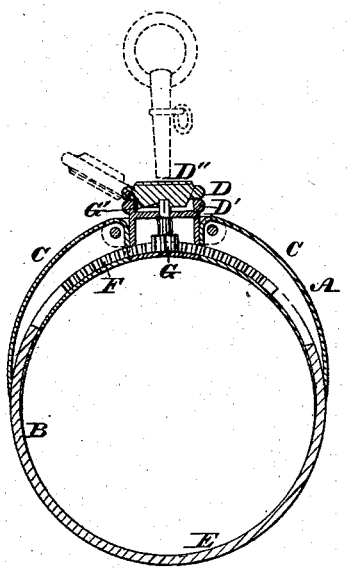


Fig. 2.

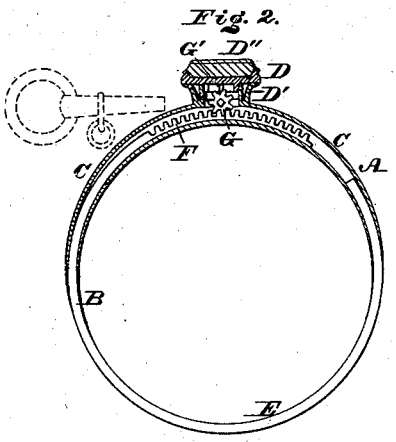


Fig. 4.

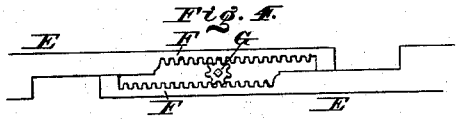


Fig. 5.

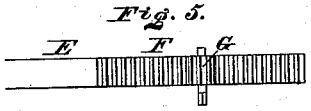


Fig. 3.

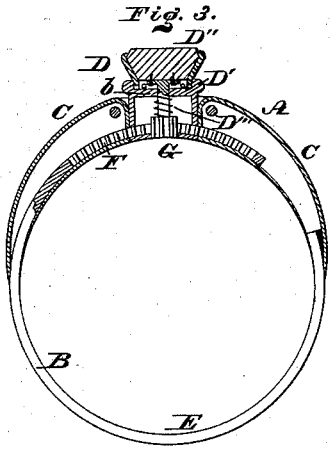


Fig. 7.

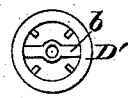


Fig. 8.

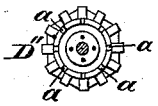
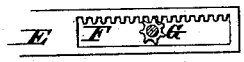


Fig. 6.



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ROBERT J. LA GRANGE, OF PHILADELPHIA, PENNSYLVANIA.

JEWELRY-RING.

SPECIFICATION forming part of Letters Patent No. 263,920, dated September 5, 1882.

Application filed June 6, 1882. (No model.)

To all whom it may concern:

Be it known that I, ROBERT J. LA GRANGE, of the city and county of Philadelphia, State of Pennsylvania, a subject of Great Britain, (having resided one year last past within the United States and declared intention of becoming a citizen thereof,) have invented a new and useful Improvement in Finger, Scarf, and other Jewelry-Rings, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figures 1, 2, and 3 are sections of rings embodying my invention. Figs. 4, 5, and 6 are top views of detached parts, modifications one of another. Fig. 7 is a top view of the lower portion of the socket of the head portion of the ring, Fig. 3. Fig. 8 is a view of the under side of the head of the ring, Fig. 3.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a finger, scarf, or other jewelry-ring whose bow is adapted to be expanded and contracted for adjusting the size of the ring by means of a pinion which is properly mounted on the ring and engages with a rack or racks formed with or secured to the bow, said ring having a head which is adapted to lock the pinion.

It also consists in providing the ring with hollow or grooved sections which, in connection with the head or head portion, serve to inclose and conceal the rack and pinion.

It also consists in locking the operating mechanism of the expansible and contractile bow by means of the head of the ring.

Referring to the drawings, A represents a ring, the bow B of which is formed partly of hollow or grooved segments or sections C, which are connected with the head portion D on opposite sides, and of an expansible and contractile band, E, whose ends pass through the sections C, and openings in the sides of the head portion D, said ends having formed with or secured to them racks F, which are accessible within said head portion.

To the socket D′ of the head portion D, to which the head D″ proper is attached, is mounted a pinion, G, which is adapted to engage with the rack or racks F of the band E, and said pinion may be arranged vertically or horizontally, and its post is squared or angular, so as to be engaged by a key or other suitable implement, whereby the pinion may be rotated and the ends of the band E thereby moved in and out of the head portion, thus contracting or expanding the band and adjusting the size of the bow of the ring. Each end of the band may be provided with a rack, F, so disposed that the pinion engages with both racks, whereby both ends of the band are simultaneously moved in opposite directions; or one end of the band may be fixed to either the head portion D or one section C, and the other end have a rack which alone is engaged by the pinion. The rack may be formed on the inner side of the end of the band, as in Fig. 4, or on the upper or lower face of said band, as in Fig. 5. In Fig. 6 I show the rack formed within the edges of the sides of the band, leaving a slot for the post of the pinion; and it is obvious that the construction or arrangement of the neck may be varied. The head D″ is connected with the socket D′ either by being hinged to the socket, screw-threaded, or furnished with catches or other means whereby the head may be securely held in position and afterward raised or entirely removed, as desired. On the under side of the head is formed an angular socket, G′, Fig. 1, which is adapted to receive the head of the post of the pinion when arranged vertically; or said head may have secured to it on its under side a downwardly-projecting teat or stud, G′, Fig. 2, which engages with one of the teeth of the pinion when arranged horizontally.

When the bow is to be moved for adjusting the size of the ring to the finger, scarf, or other object on which it is worn the head D″ is raised or removed. This relieves the head of the post of the holding action of the socket of the head of the ring or teeth of the pinion of the holding action of the stud G′. The pinion is then operated by a suitable key, and when the adjustment of the bow is completed the head D″ is restored, and thus again holds the pinion, whereby the adjustment of the bow or ring is preserved.

It is evident that the rack F may be of the form of a worm and the pinion that of a worm-wheel, which, being properly arranged and mounted, may move one or both ends of the bow, similar to the rack and pinion previously described.

In Fig. 3 the contiguous faces of the head D″ and socket D′ are tongued or grooved or

serrated, as at *a*, and the head has attached to it the post of the pinion and is capable of being drawn out from the socket, the effect of which is to disengage the serrated faces of the head and socket without disengaging the pinion and rack. The pinion may then be operated by rotating the head D″, and when the bow is adjusted the head is returned to its normal position by means of a spring, D‴, which encircles the post of the pinion and bears against the pinion and a cross-bar, *b*, within the socket D′ above said pinion, the serrated face, as aforesaid, again being interlocked, and thus the parts retain their adjusted positions.

It will be seen that by the employment of the pinion and engaging rack or racks the bow may be adjusted with ease and nicety, and the head of the ring conceals said pinion and portions of the rack, the other portions, &c. When the pinion has a horizontal position an opening is formed in the wall of the socket for access to the post of the pinion and insertion of the operating-key; but said opening may be concealed by a small slide or cover or left exposed, as desired.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a ring, an adjustable bow provided with a rack or racks, in combination with an operating-pinion and a locking-head, substantially as and for the purpose set forth.

2. In an adjustable ring, the expansible and contractile band of the bow, provided with a rack or racks, in combination with a pinion which is mounted on the head of the ring and engages with said rack or racks, and hollow or grooved sections through which the ends of said band are passed, substantially as and for the purpose set forth.

3. In an adjustable ring, an expansible bow provided with a rack or racks, and an operating-pinion, in combination with the head of the ring, covering said pinion and provided with a lock therefor, substantially as and for the purpose set forth.

ROBT. J. LA GRANGE.

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