

**No. 641,935.**

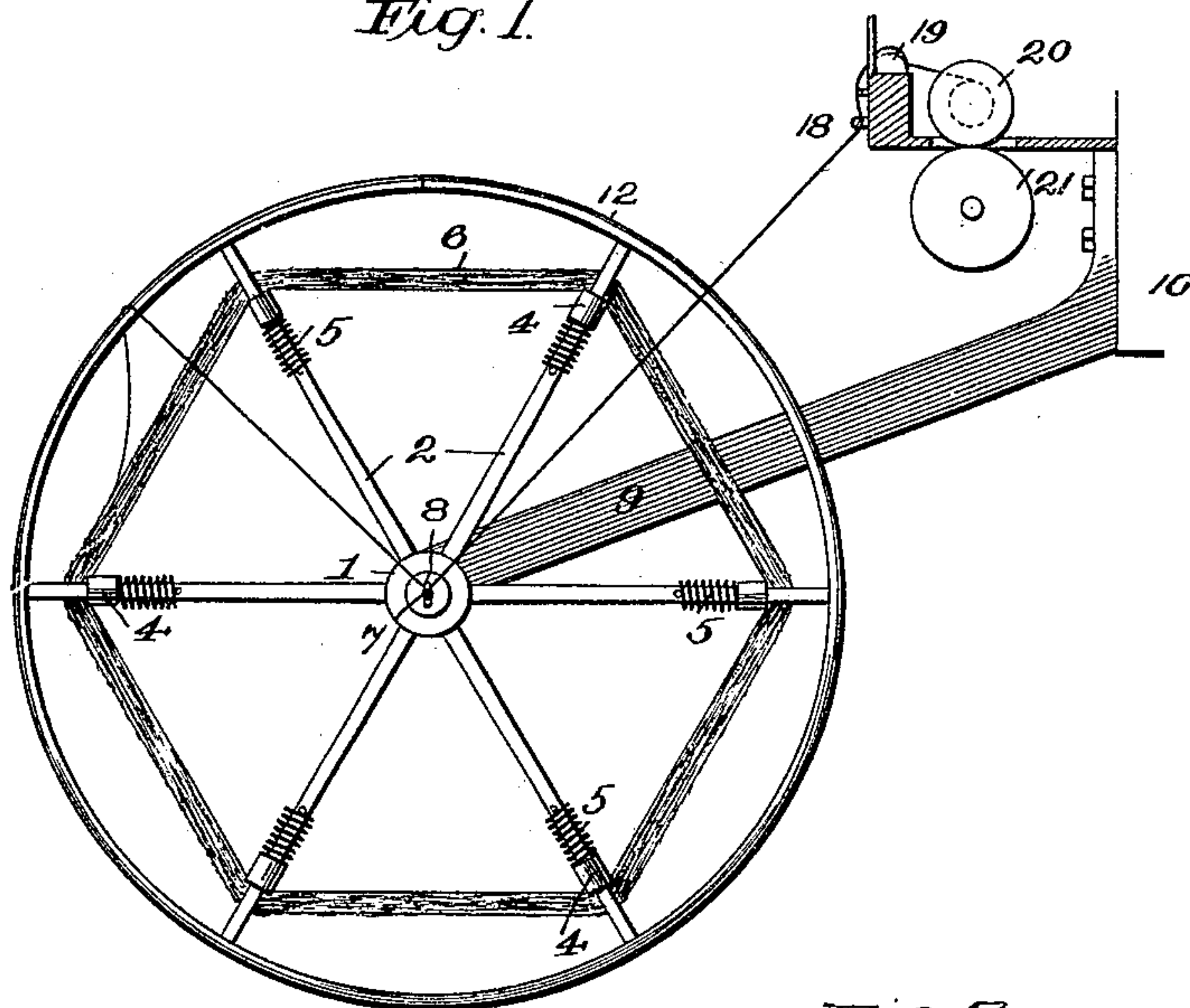
**Patented Jan. 23, 1900.**

**J. L. CHALMERS.**  
**SWIFT.**

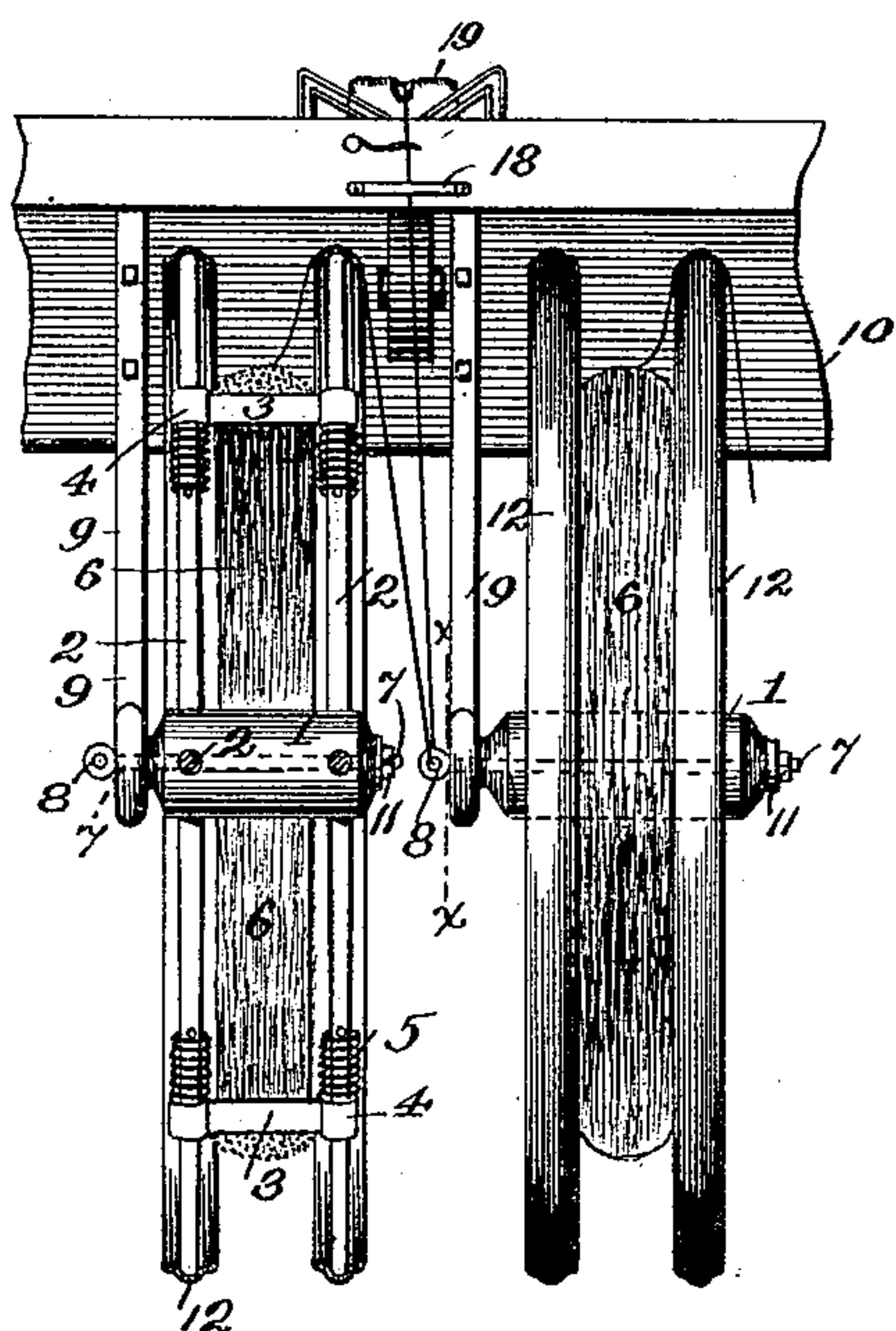
(Application filed Apr. 13, 1899.)

(No Model.)

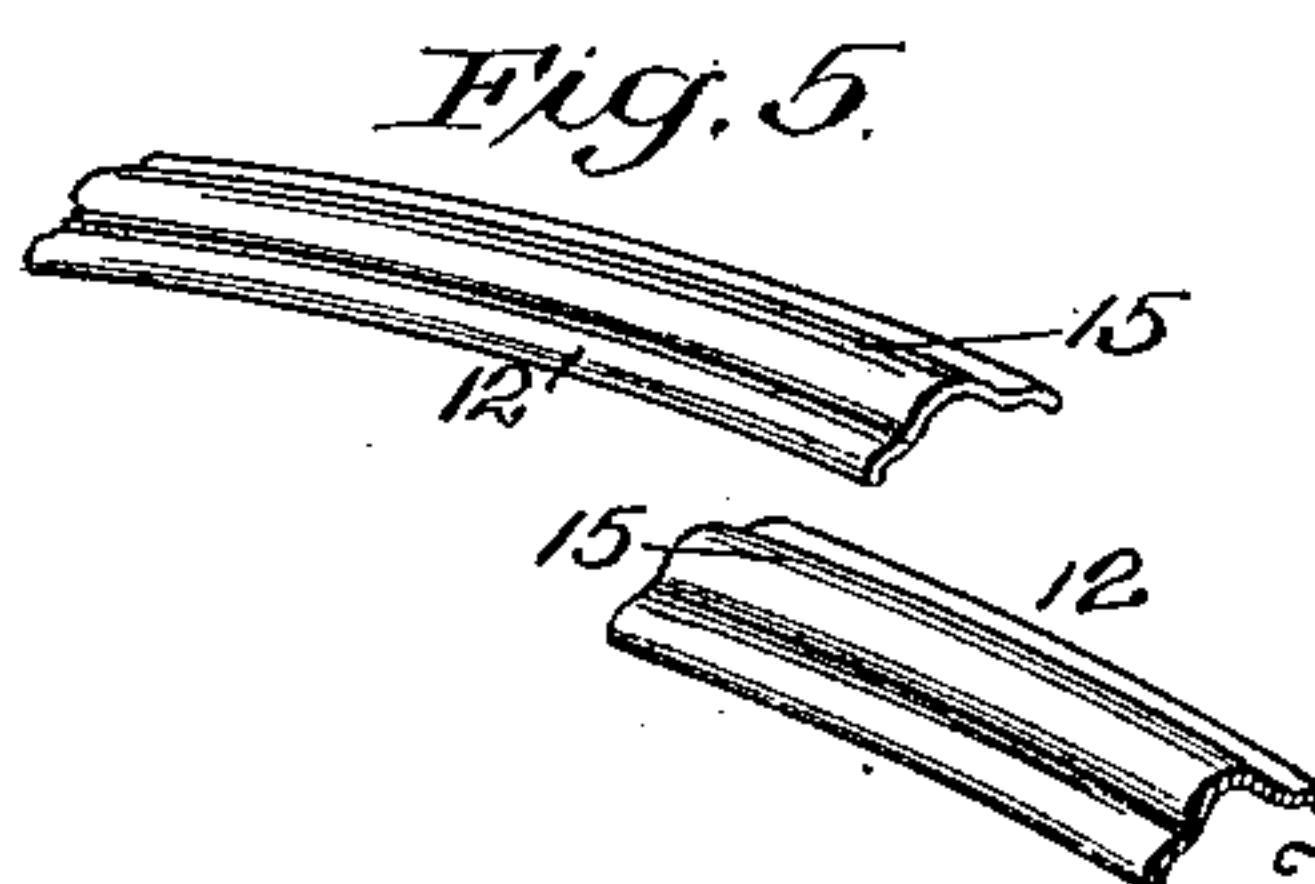
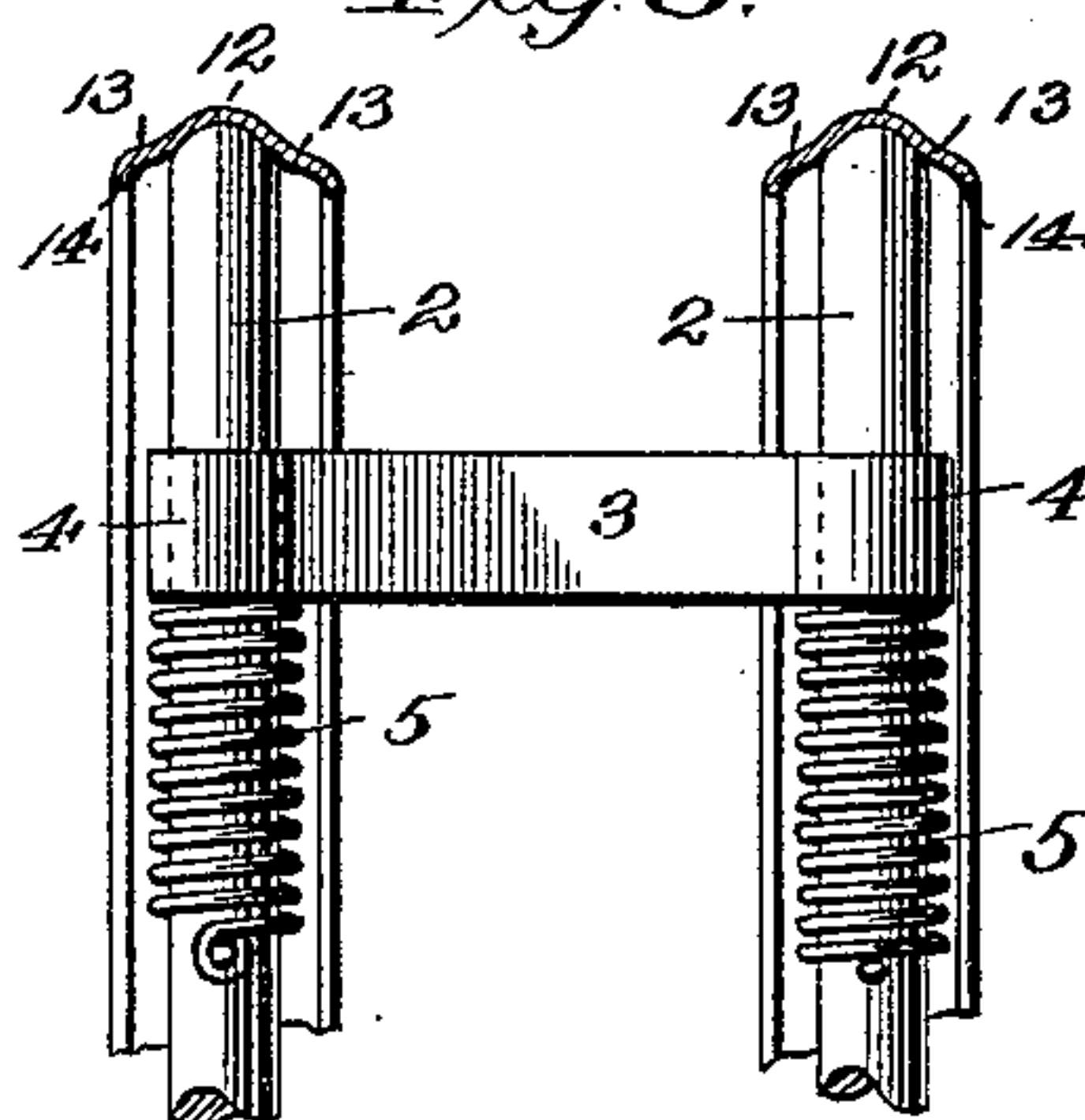
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## SWIFT.

SPECIFICATION forming part of Letters Patent No. 641,935, dated January 23, 1900.

Application filed April 13, 1899. Serial No. 712,915. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES L. CHALMERS, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Swifts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to swifts; and the object in view is to provide a novel construction of swift by means of which the body of the swift is allowed to remain stationary while the strand, thread, or skein is unwound therefrom. By means of the improved construction much greater speed may be attained and the strand unwound from the swift and wound upon a spool with greater rapidity.

The detailed objects and advantages of the invention will appear more fully in the course of the subjoined description.

The invention consists in a swift embodying certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and incorporated in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a swift constructed in accordance with the present invention, also showing the manner of supporting the same and showing the strand being unwound therefrom and wound upon a spool. Fig. 2 is a front elevation of the same. Fig. 3 is an enlarged detail view showing a pair of the arms or spokes of the swift and also showing the detachable rim in cross-section. Fig. 4 is a detail view of one of the yokes. Fig. 5 is a detail perspective view showing the interlocking and overlapping ends of the rim.

Similar numerals of reference designate corresponding parts in all the views.

The swift contemplated in this invention is composed of a hub or body 1, from which radiate a plurality of arms or spokes 2. Two sets of these arms or spokes are employed and arranged in opposite pairs, as shown in Figs. 2 and 3. Each pair of spokes is embraced by a yoke 3, constructed, preferably, of a piece of strap metal, the ends of which are bent into the form of sleeves 4, which fit around

the spokes 2 and slide thereon. Each of the spokes is encircled by a coil-spring 5, the inner end of which is attached fixedly to the spoke. These springs bear at their outer ends against the sleeves 4 of the yokes 3 and serve to constantly urge the yokes outward toward the ends of the spokes, the object of which is to stretch the skein (indicated at 6) and enable the same to be readily unwound.

The hub 1 is provided with a central longitudinal opening to receive a shaft or axle 7, which is provided at one end with an eye, forming a guide for the strand or thread. The shaft 7 is removably fitted in the hub 1 and is also removably fitted in the extremity of the hanger 9, secured to a suitable support 10. When the shaft 7 is in place, it may be secured, if found desirable, by a nut 11, placed upon the unsupported end thereof. By means of the construction just described the swift as a whole is removable from the hanger and the shaft itself is equipped with a guide through which the strand or thread from an adjoining swift passes.

Extending around and bearing against the outer extremities of the spokes 2 is a circular rim or band 12. In cross-section this rim is concavo-convex or semicircular as to its main body portion, and is also extended laterally to form oppositely-extending flanges 13, which project nearly horizontally, the outer extremities or edges of said flanges being deflected inward, as at 14, to form rounded bearing-surfaces upon which the strand or thread travels when unwinding. The ring 12 is preferably constructed of spring metal, and the ends thereof are provided with overlapping portions, 15 as shown in Fig. 5. The resiliency of the rim serves to keep it in place upon the ends of the spokes 2.

The skein being placed upon the yokes 3 and between the two sets of spokes, the end of the skein or strand is carried over the outside of the rim 12 and then toward the center of the swift, where it is reeved through the eye 8 of the shaft of the adjoining swift. The strand or thread is then extended through suitable guides 18 and 19, whence it passes to and is wound upon the spool 20, actuated by any suitable driver 21. The swift remains stationary, and as the strand is wound upon



the spool said strand slides upon and around the rim 12, and by reason of the fact that the rim is located at a greater distance from the axis of the swift than the skein the strand is lifted off the yokes 3 without resistance. Should the strand become broken, it will immediately cease to unwind, for the reason that the swift is stationary and there is nothing to move or actuate the strand. Thus a great advantage is obtained over a revolving swift, which by reason of its momentum would continue to revolve after the strand was broken, thus endangering the tangling of the skein or the loss of the end of the strand. The spring-pressed yokes are constantly urged outward and they keep the skein taut, thus greatly facilitating the unwinding of the thread therefrom.

I do not desire to be limited to the exact details of construction hereinabove set forth, but reserve to myself the right to change, modify, or vary the construction within the scope of the invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A stationary swift provided with radiating spokes and a rim of greater diameter than the body of the swift made concavo-convex in form in cross-section with its convex face outward, said rim engaging the outer ends of the spokes and being held in place thereon by its own resiliency, substantially as described.

2. The combination with a stationary swift provided at one end with radiating spokes extending beyond the body of the swift, in combination with a concavo-convex rim engaging the outer ends of the spokes and held in place

thereon only by its own resiliency, substantially as described.

3. A swift provided with radiating spokes, in combination with a removable rim having a concave inner face fitting and engaging the ends of the spokes and provided with overlapping ends, said rim being retained in place by its engagement with the spokes and its own resiliency, substantially as described.

4. A swift comprising radiating spokes, in combination with a rim fitted upon the ends of said spokes and having a semicircular cross-sectional shape with laterally-extending flanges on both sides, substantially as described.

5. A swift comprising radiating spokes in combination with a rim mounted upon the ends of said spokes and having a semicircular cross-sectional shape with laterally-extending flanges, the edges of which are deflected inward, substantially as and for the purpose specified.

6. A stationary swift comprising two sets of radiating spokes located in oppositely-arranged pairs, in combination with yokes connecting the pairs of spokes and mounted slidingly thereon, and an outer rim made concavo-convex in form, one for each set of spokes, said rims engaging the ends of the spokes and being held in place thereon by their own resiliency, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES L. CHALMERS.

Witnesses:

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