

Frederic S. Miller.

Wheel.

No. 475,510. 24th May, 1892.

Extract of Specification:-

My invention relates to wheels having an elastic or yielding portion as a part of their structure, whereby the jar produced by the inequalities of the road is not transmitted to the axle, but is wholly or partially absorbed by the elastic structure of the wheel.

The wheel consists of three portions: 1st, a rigid center or hub. 2nd, an outside rim or tire. 3rd, of elastic connections ---- between the rim and the hub or the center.

A, Fig. 1, is the center of the wheel, which may be of any construction and of any size relatively to the whole diameter of the wheel.

B, is the rim, in this instance of a U-shaped section, as seen in Fig. 2. One side is cut away in Fig. 1, in order to show the --- connections between the rim and the center. To the center, A, is secured in any suitable manner a series of springs, C C, such ---- fastening being rigid as shown in Fig. 1. The other end of each spring, C, is fastened to a link, D, by means of a pivot. The opposite end of link, D, is pivoted to the rim, B, as shown in Fig. 2.

In Fig. 3, a spring, C', is rigidly fastened to the rim, B', and is connected by the link, D, to the center, A', lugs, a', being provided for the pivots, upon which the links, D, are hung. As shown in Fig. 3, the rim, B', is merely a flat strip of thin metal, so that it has considerable elasticity of its own, while in Fig. 1, the U-shaped section of the rim makes it comparatively rigid.

Whether the rim be made rigid or elastic the center of the wheel will not yield under the weight imposed upon it unless the connection between the rim and the center can yield simultaneously throughout the whole circumference. If the springs are rigidly attached to both rim and center and their yielding is relied --- upon to permit of such motion between the rim and the center --- they must be of a shape which gives flexibility under both tangential and radial pressure, and as all springs throughout the --- circumference of the wheel must yield more or less they must be made very light and delicate. To overcome these difficulties is the purpose of the links, D D, which as clearly shown in Fig. 1, --- yield so as to permit the wheel center to be depressed without flexing the side springs materially, the weight being carried by springs at the top and bottom of the wheel, which are then in --- position to act most easily and smoothly.

F. S. Miller
Wheel.

#75510

24 May. 1892.

Fig. 1.

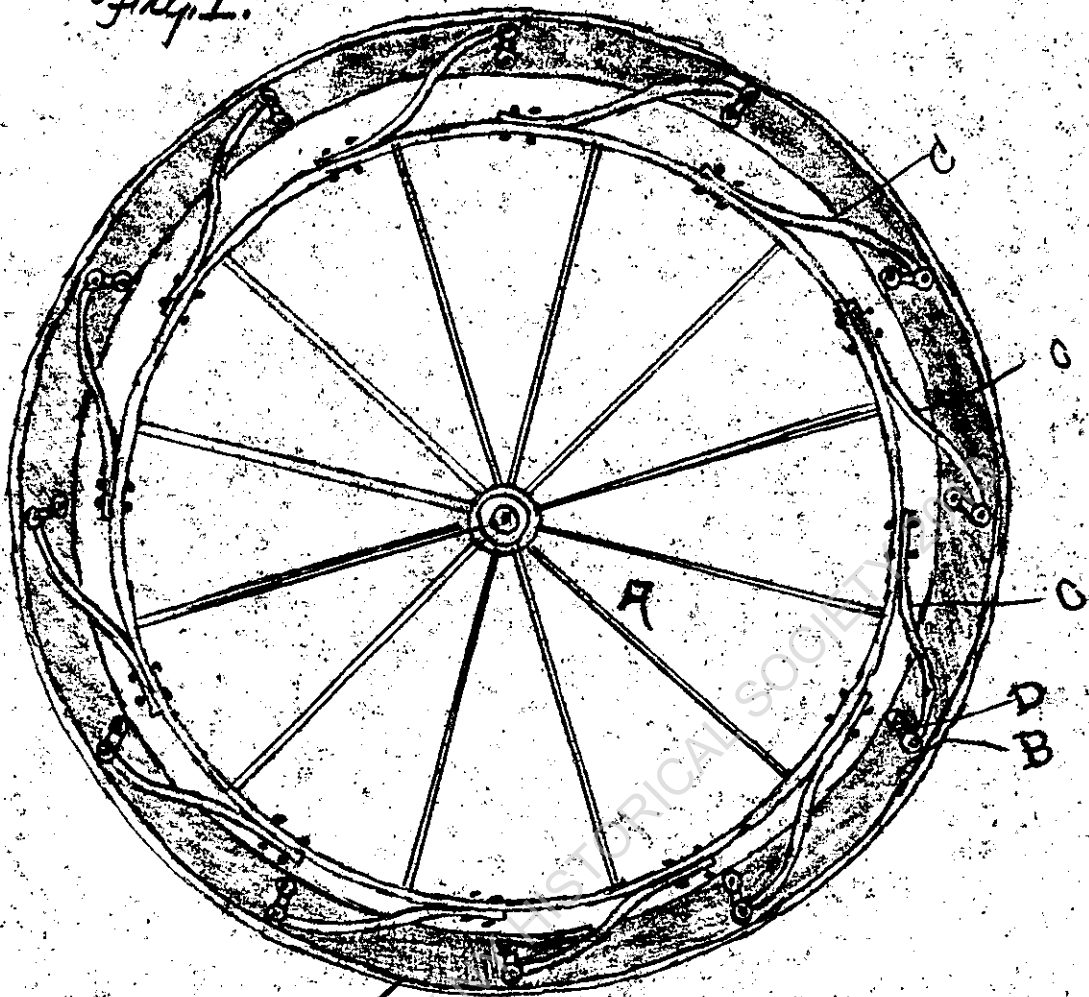


Fig. 2.

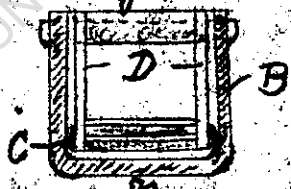
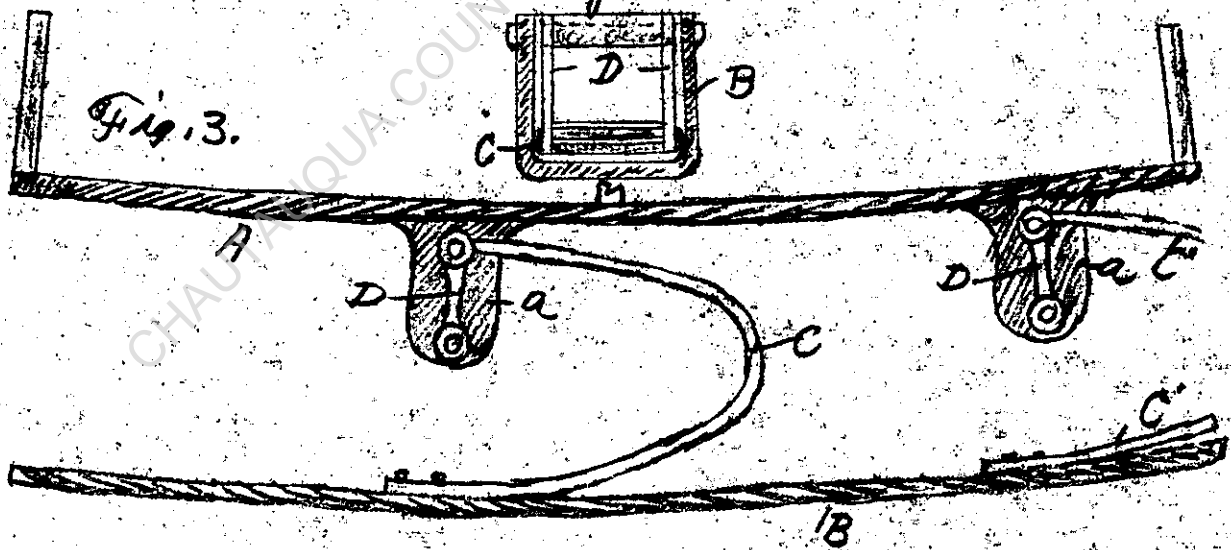
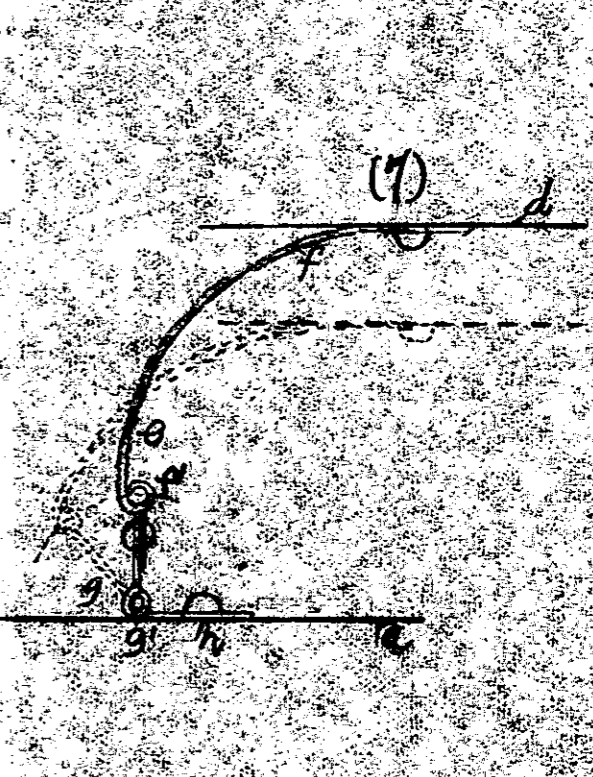
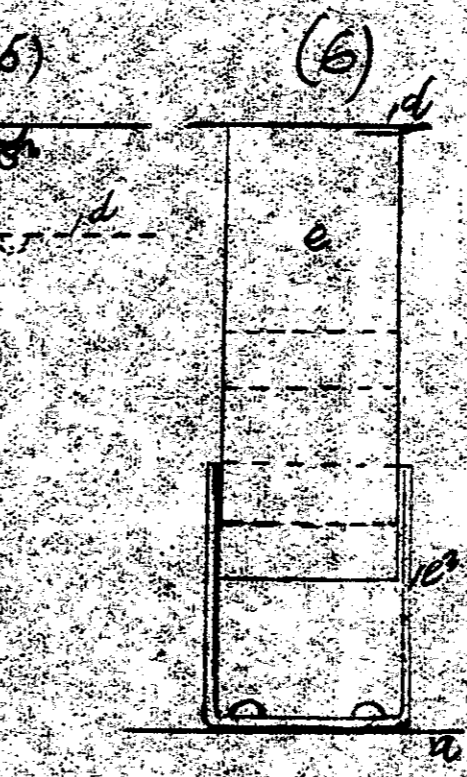
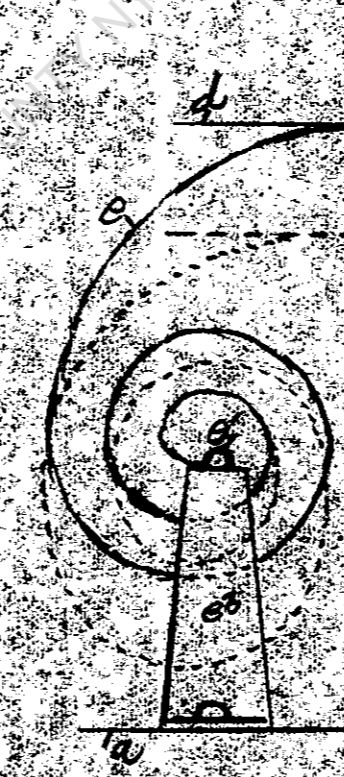
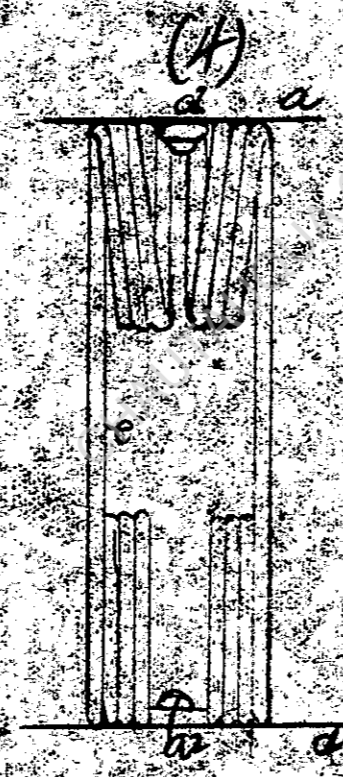
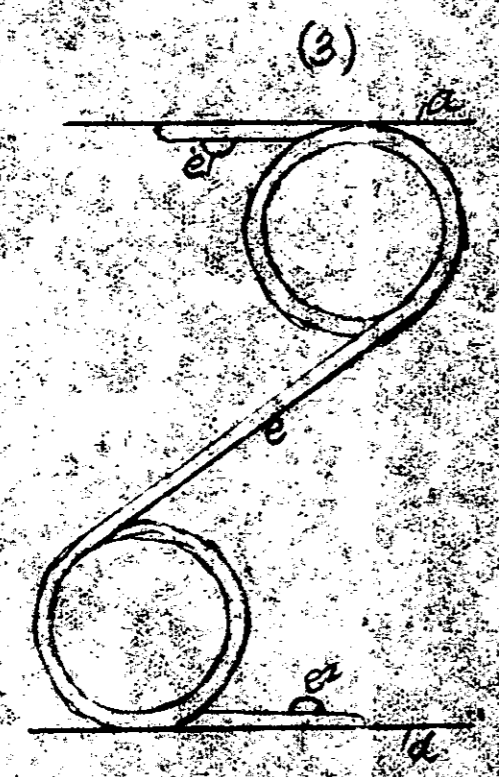
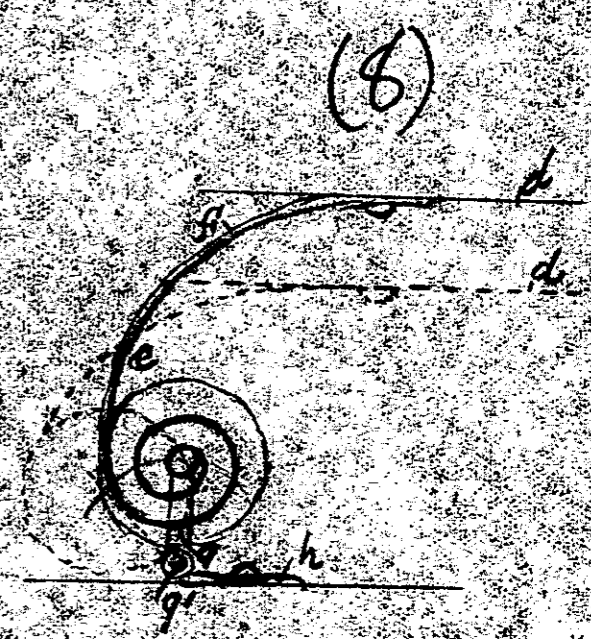
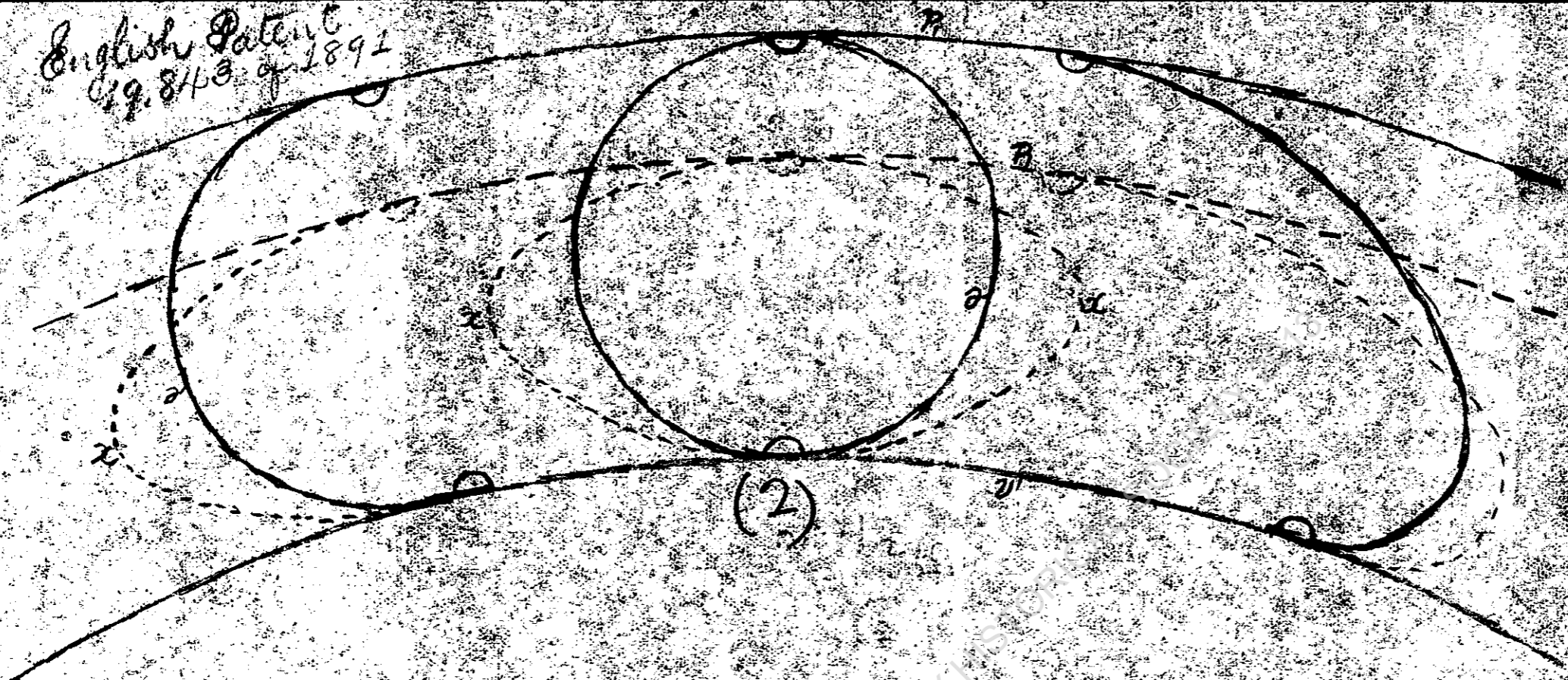


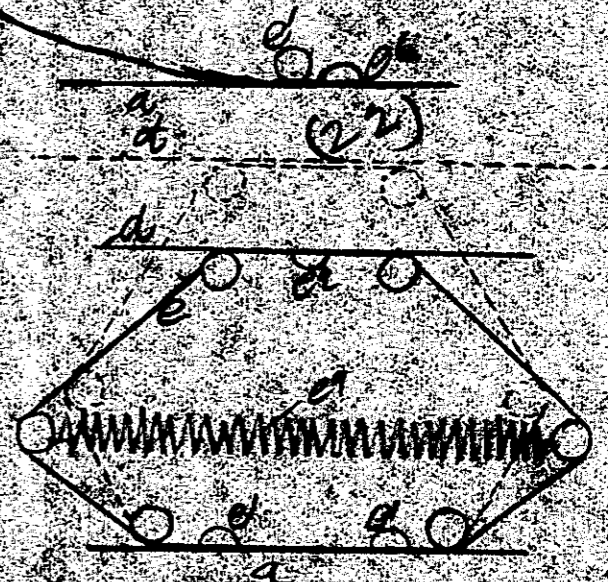
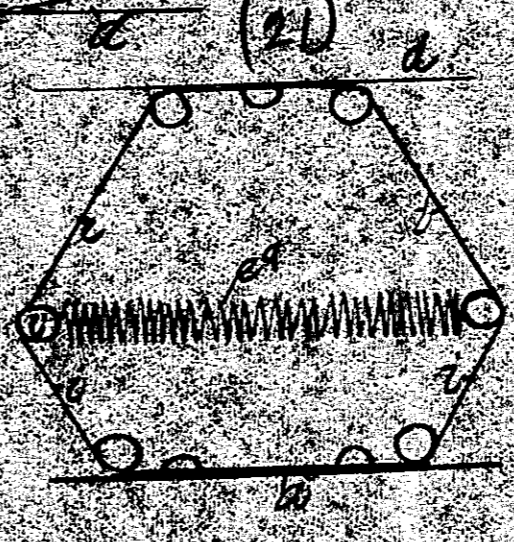
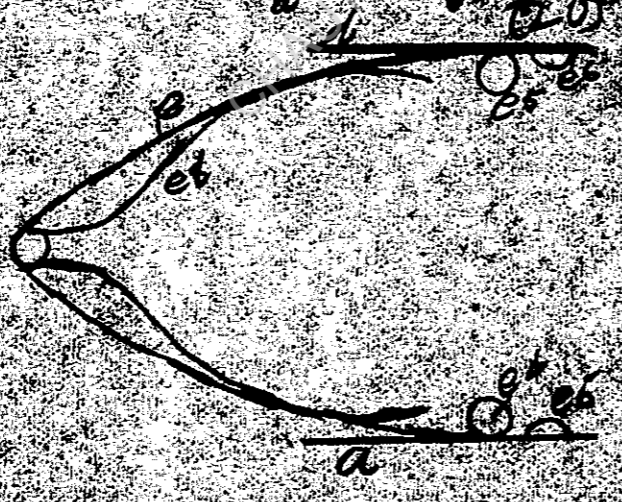
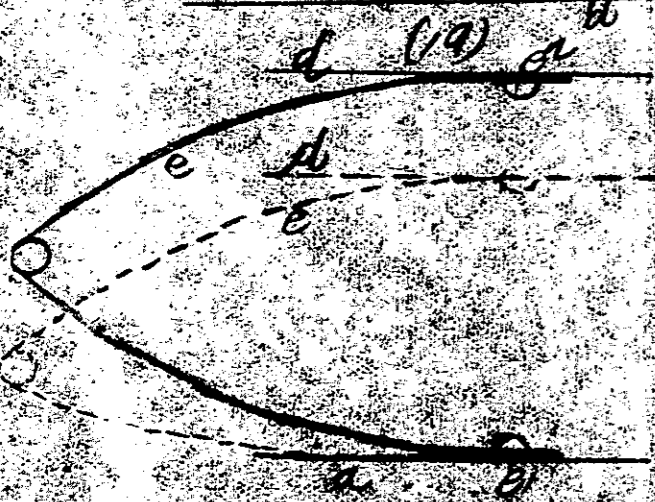
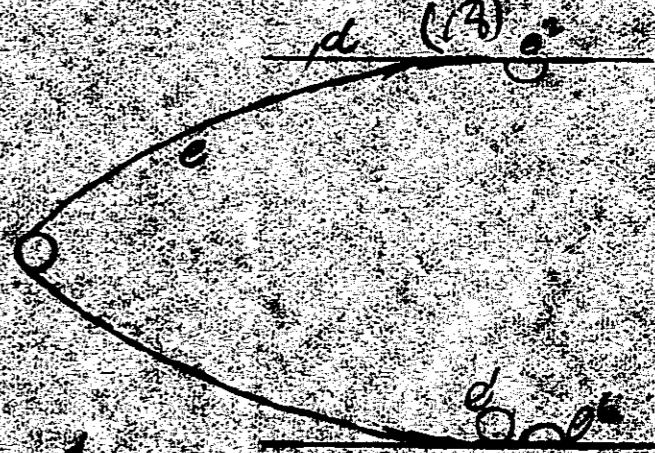
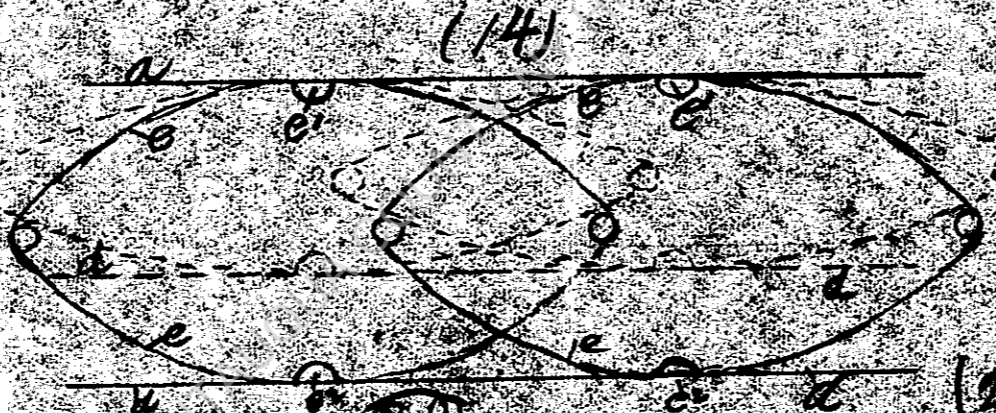
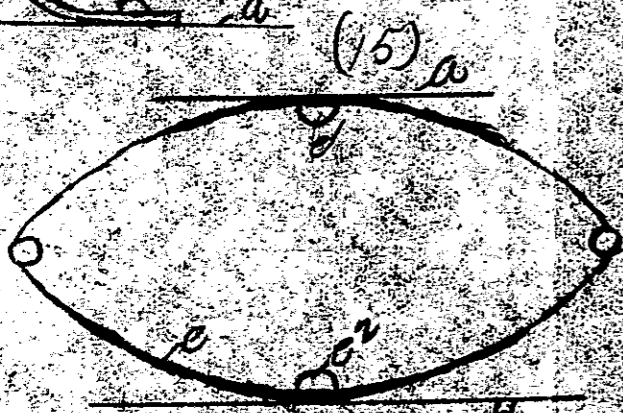
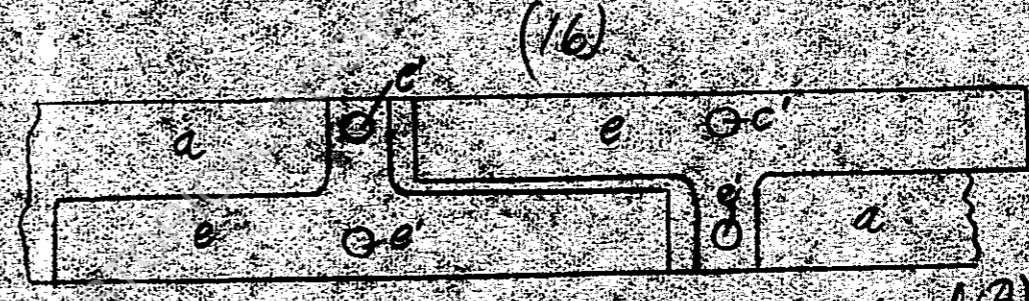
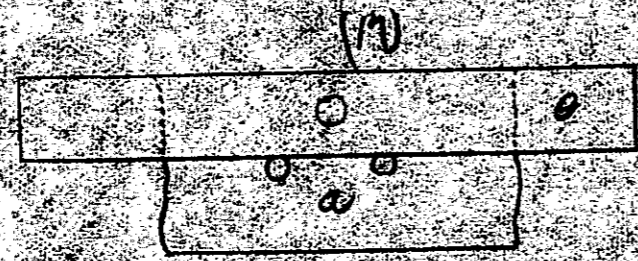
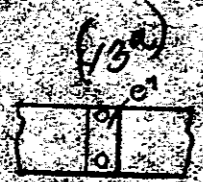
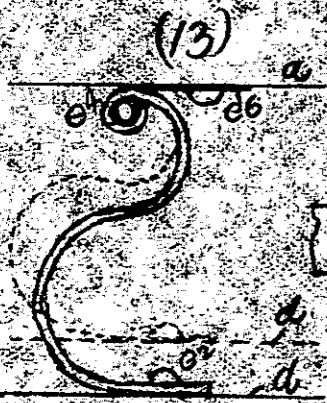
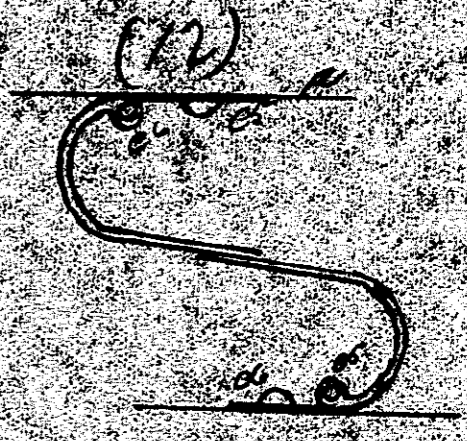
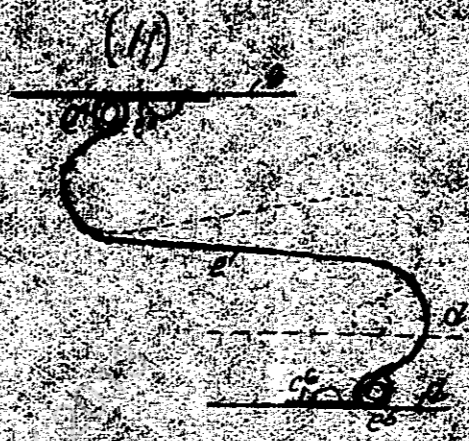
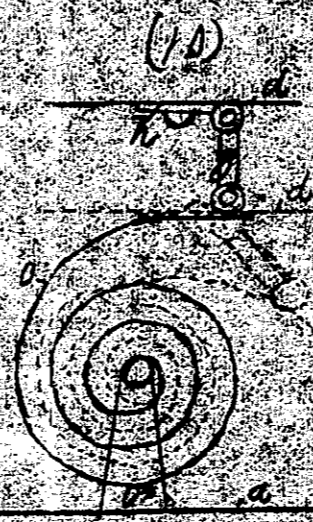
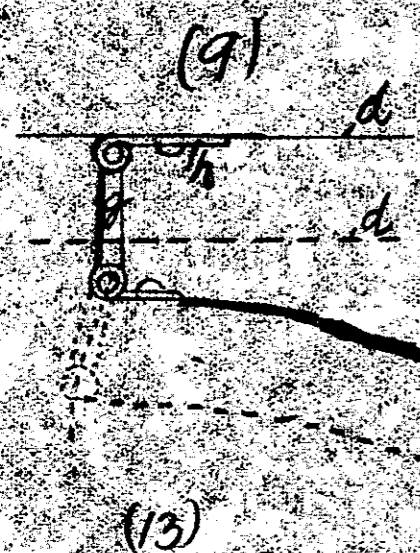
Fig. 3.



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