

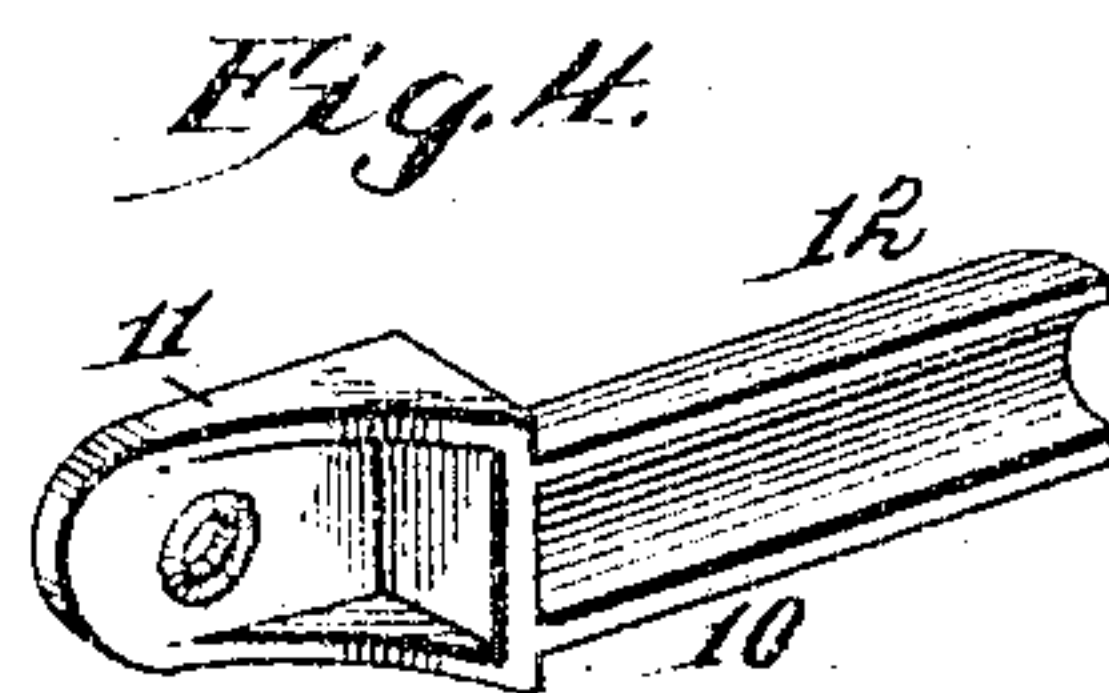
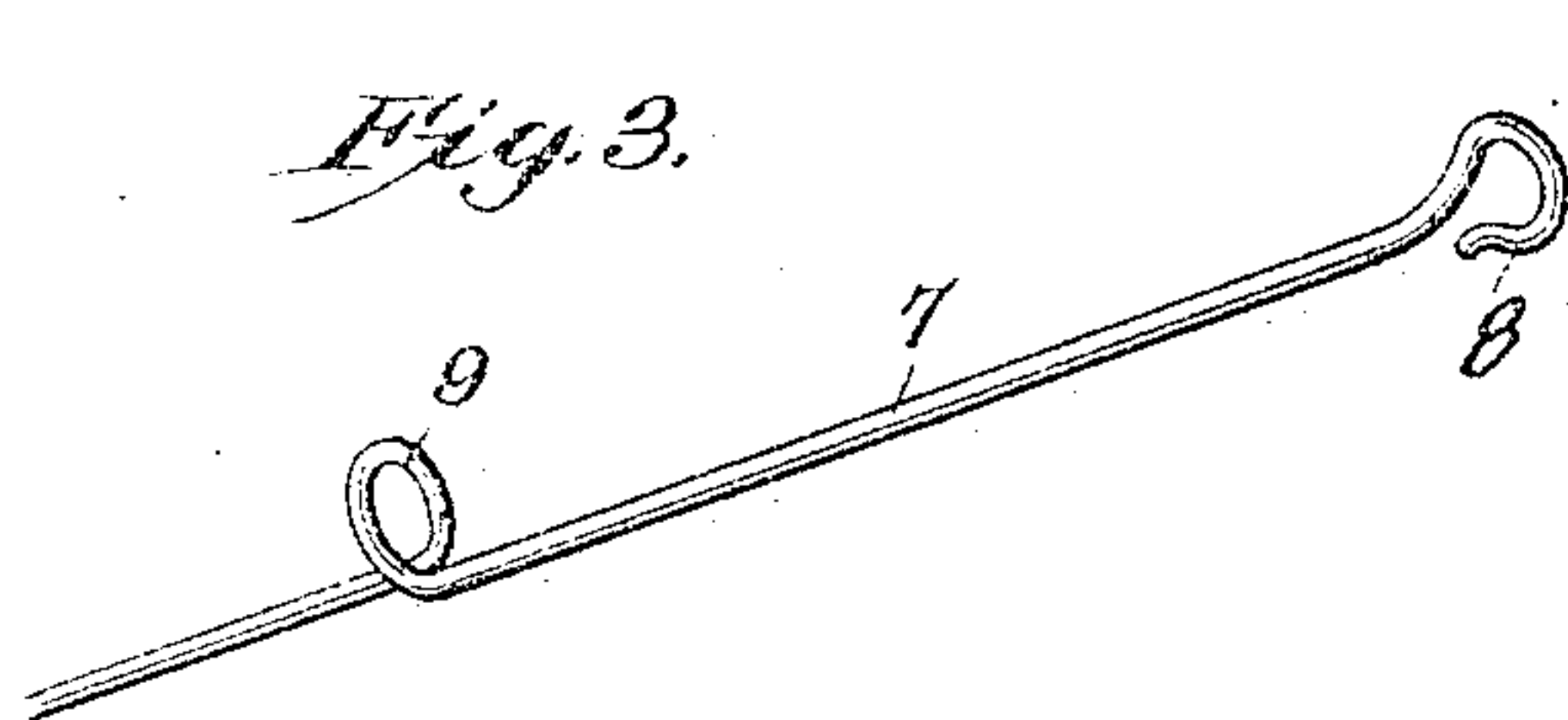
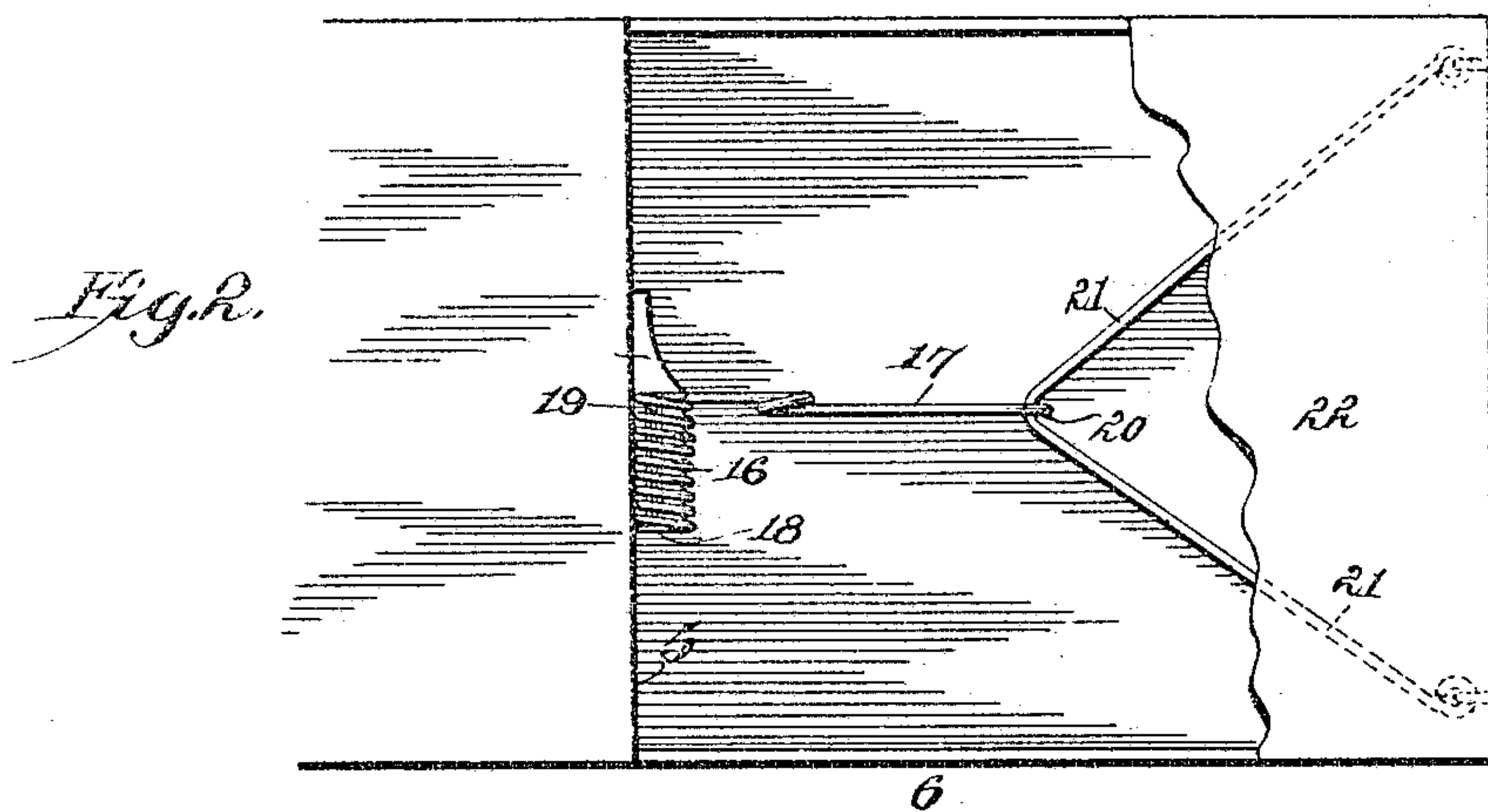
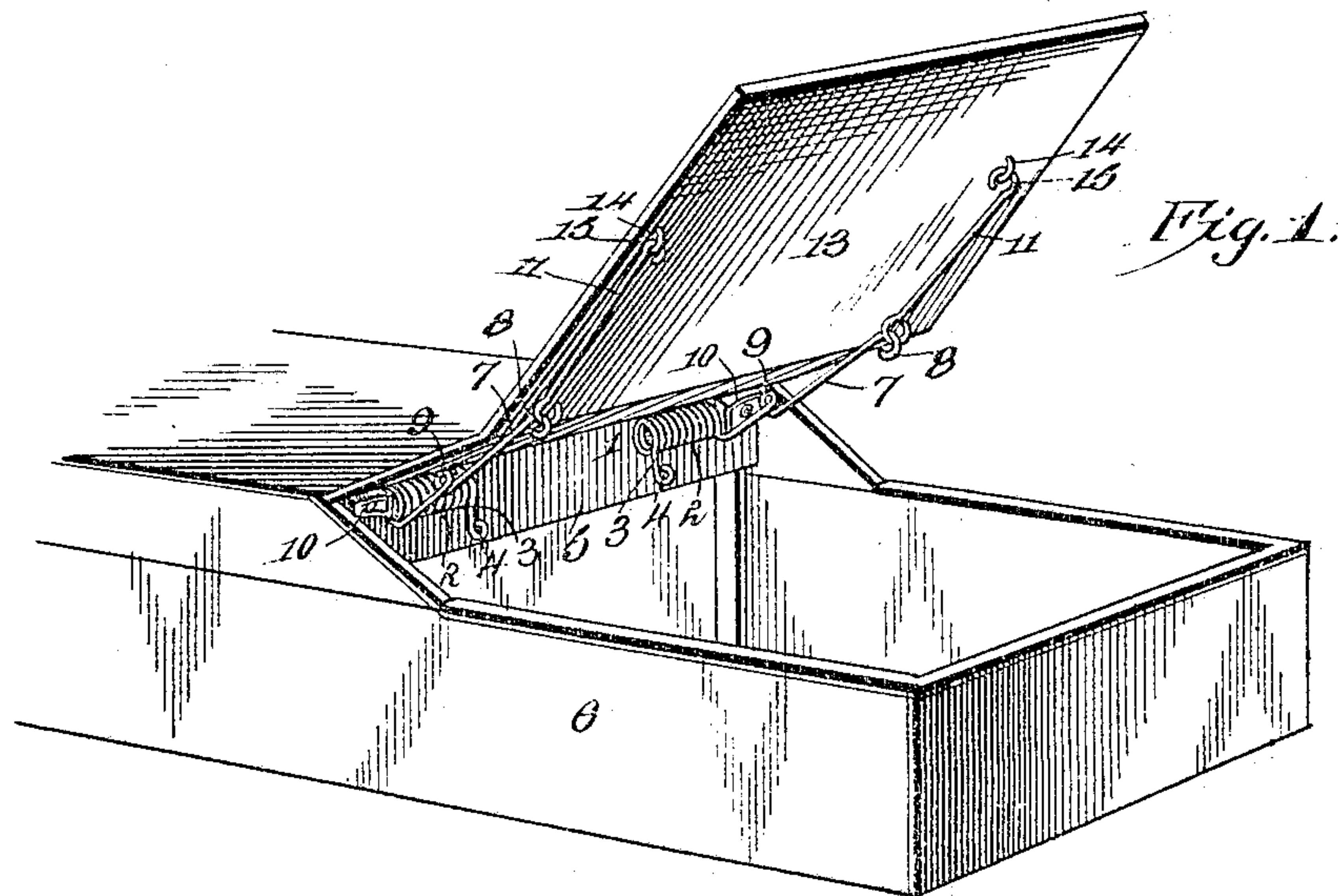
No. 775,344.

PATENTED NOV. 22, 1904.

W. R. BRADFORD.  
BUGGY BOOT SPRING.

APPLICATION FILED FEB. 12, 1904.

NO MODEL.



W. R. Bradford, Inventor.

Witnesses

Louis C. Starke  
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By

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# UNITED STATES PATENT OFFICE.

WILLIAM R. BRADFORD, OF FLORENCE, KENTUCKY.

## BUGGY-BOOT SPRING.

SPECIFICATION forming part of Letters Patent No. 775,344, dated November 22, 1904.

Application filed February 12, 1904. Serial No. 193,295. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM R. BRADFORD, a citizen of the United States, residing at Florence, in the county of Boone and State of Kentucky, have invented a new and useful Buggy-Boot Spring, of which the following is a specification.

The invention relates to improvements in buggy-boot springs.

The object of the present invention is to improve the construction of buggy-boot springs and to provide a simple, inexpensive, and efficient one which will be strong and durable and which will obviate the necessity of hinging a buggy-boot directly to the seat-frame.

A further object of the invention is to provide a buggy-boot spring of this character which will hold the buggy-boot firmly in its closed position and which will permit the boot to be readily removed to afford access to the interior of the body.

Another object of the invention is to provide a boot-spring which will be adapted for use on automobiles and various other vehicles and which will be capable of being readily applied to the same.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended, it being understood that various changes in the form, proportion, size, and minor details of construction within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a portion of the body of a buggy provided with boot-springs constructed in accordance with this invention, illustrating the arrangement of the same when two springs are employed. Fig. 2 is a plan view illustrating the arrangement when a single spring is employed. Fig. 3 is a detail perspective view of one of the spring-arms. Fig. 4 is a similar view of one of the supports.

Like numerals of reference designate corre-

sponding parts in all the figures of the drawings.

1 1 designate springs, which are preferably made right and left handed, as shown, and each spring consists of a coil 2, having one end extended to form a short arm 3, which terminates in an eye 4 and which is secured to the seat-frame 5 of the body 6 of a buggy by a screw or other suitable fastening device; but the spring is also applicable to boots of various other vehicles, such as automobiles and the like. The short arm is preferably arranged at the inner end of the coil, and the outer end of the coil is extended to form a long arm 7, which terminates in a hook 8 and which is preferably coiled between its ends to provide an intermediate spring-coil 9 to increase the resiliency of the arm.

The spring-coil is held in position by means of a support 10, having a head 11 and provided with an approximately semitubular coil-receiving portion 12. The head has a flat face fitted against the seat-frame and is perforated for the reception of a screw or other suitable fastening device. The semitubular or semicylindrical coil-receiving portion presents a convex face to the spring and extends into the coil from the outer side thereof, and the head projects laterally beyond the coil-receiving portion and forms a shoulder which is located at the outer end of the coil. The spring-coil 2 is retained on the coil-receiving portion by a fastening device which passes through the eye 4 of the arm 3. The support is adapted to maintain the spring-coil 2 firmly in position without interfering with the action of the spring. Each spring is connected with the boot 13 by means of rods or wires 11 or other suitable connecting means located at opposite sides of the boot and extending forwardly from the rear portion thereof and preferably hinged to the boot by means of eyes 14 and hooks 15. The springs hold the boot firmly in position on the back of the body 6 and obviate the necessity of hinging the same to the seat-frame, and they permit the boot to be readily detached to afford free access to the body 6.

Instead of employing a pair of springs, as



illustrated in Fig. 1, a single centrally - arranged spring 16 may be used, as shown in Fig. 2. The spring 16, which is constructed like those heretofore described, is provided with long and short arms 17 and 18, and its main coil is mounted on the semitubular portion of a support 19. The hook 20 of the long arm engages a connecting-piece 21 of the boot 22. The connecting-piece may consist of a wire, cord, or the like, and it extends from each side of the boot to the spring, forming a loop. The spring is adapted to hold the boot firmly on the body of the buggy and may be advantageously employed where great spring-pressure is not necessary.

The device is adapted to be readily applied to a buggy or other vehicle, and it will last as long as the latter.

In Fig. 4 of the drawings the support for the spring is shown as being made of cast metal; but it is obvious that any other material could be selected for the purpose. For instance, it might be made of stiff wire.

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

1. A device of the class described, comprising a spring having a coil and provided at the ends thereof with arms, one of the arms being designed to bear against a vehicle-body and the other to be connected with a boot, a support composed of an attaching portion fixed to the vehicle-body, and a supporting portion receiving the coil of the spring, said support being provided at the inner end of the coil-receiving portion with a shoulder for engagement with the coil, substantially as described.

2. A device of the class described, comprising a spring having a coil and provided at the ends thereof with arms, one of the arms be-

ing designed to be connected to a vehicle-body, and the other to be connected with a boot, and a support comprising an attaching portion fixed to the vehicle-body, and a coil-receiving portion extending into the coil and presenting a convex face to the same, substantially as described.

3. A device of the class described, comprising a spring consisting of a coil, a short arm extending from one end of the coil and provided with an eye, a long arm extending from the other end of the coil and provided at its outer end with engaging means, and a support composed of a head arranged to fit against a vehicle-body and fixed to the same, and an approximately semitubular coil-receiving portion extending into the coil of the spring and forming a support for the same, substantially as described.

4. A device of the class described, comprising a spring consisting of a coil provided at its ends with arms, one of the arms being arranged to bear against the vehicle-body, and the other arm being designed to be connected with the boot of the vehicle, and a support comprising a head having a flat face to fit against the vehicle-body and fixed to the same, a coil-receiving portion of substantially the same length as the coil of the spring and extending from the head into the said coil, said head being projected laterally beyond the coil-receiving portion to provide a shoulder for engaging the coil, substantially as described.

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

WILLIAM R. BRADFORD.

Witnesses:

KATHERINE GURNEY,  
JOSEPH H. GRAVES.