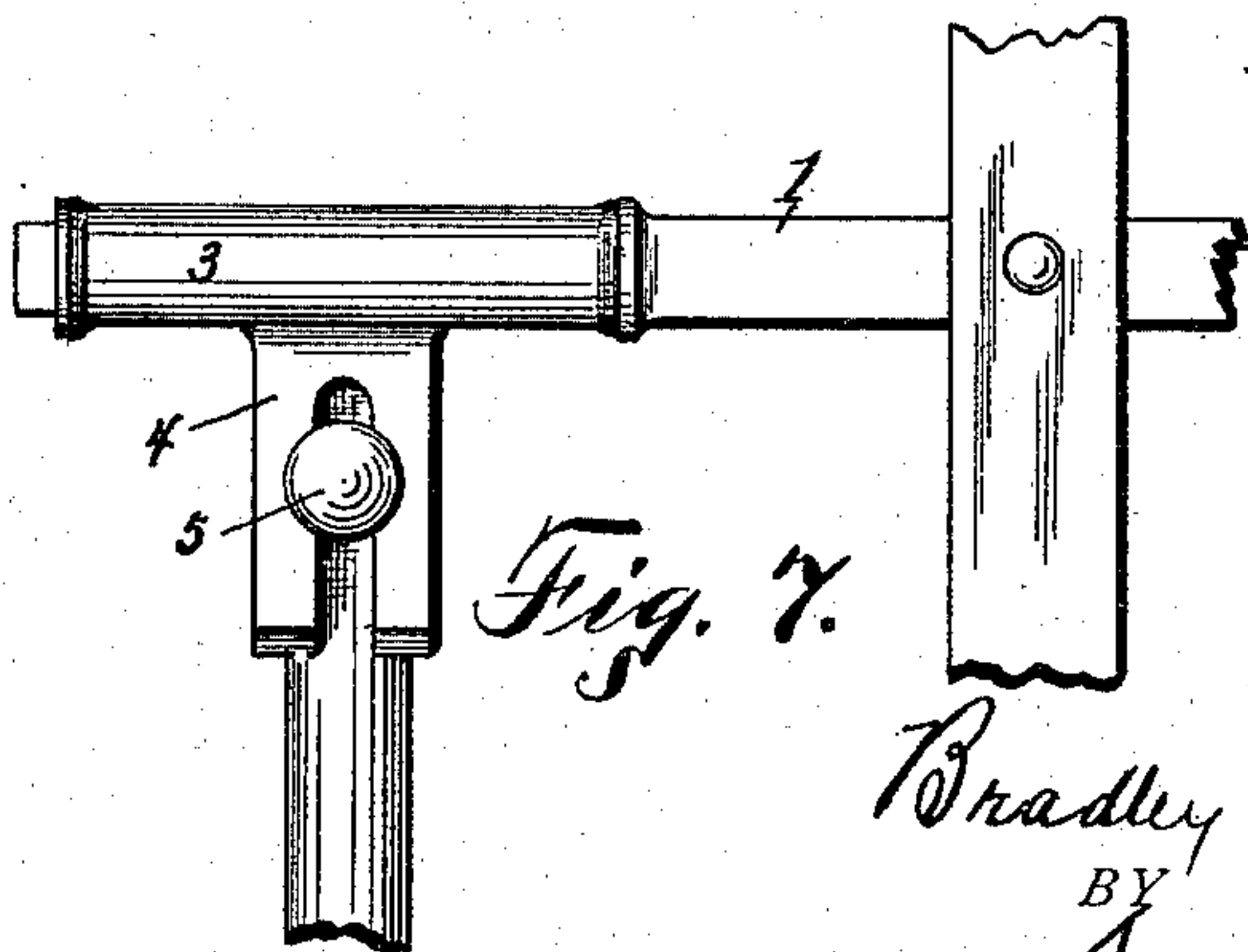
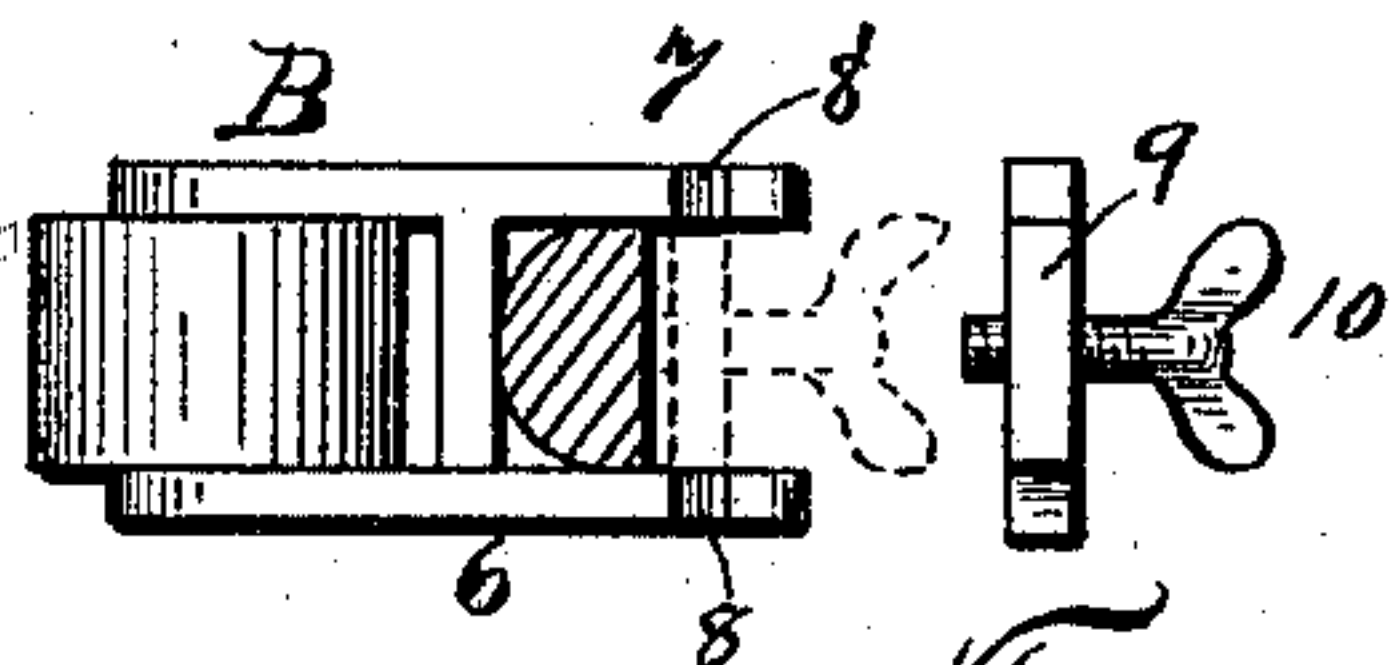
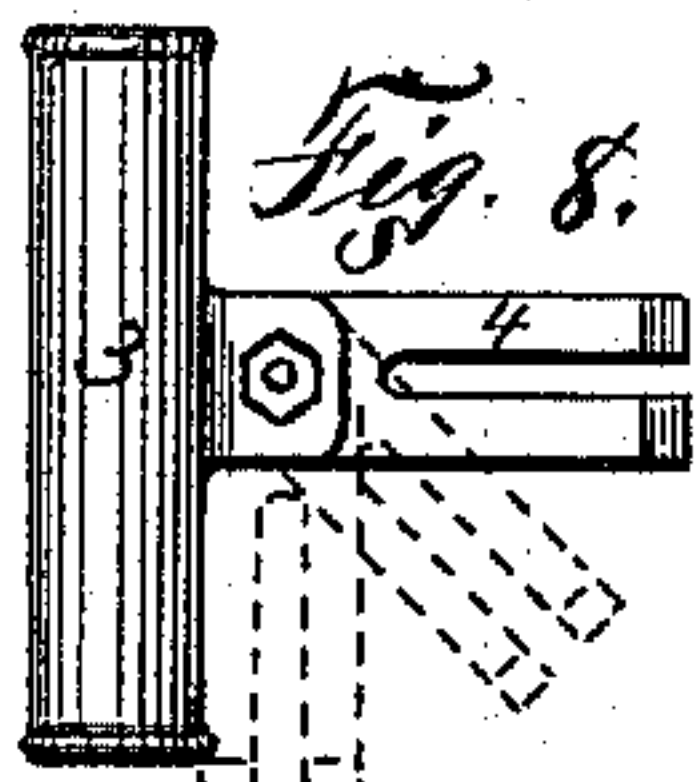
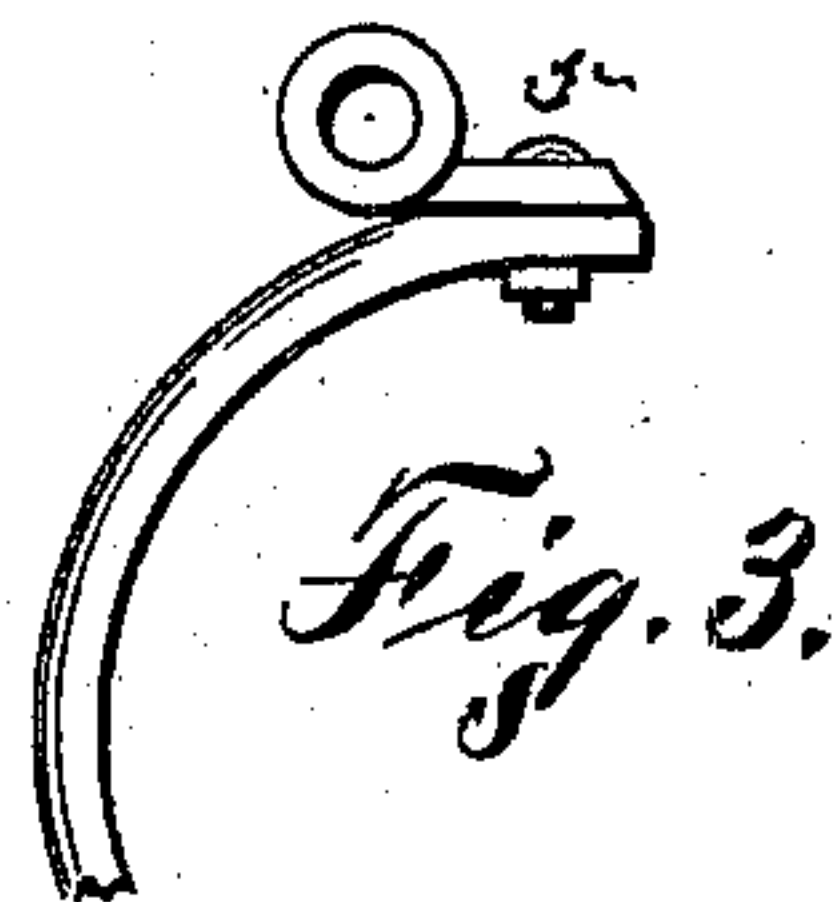
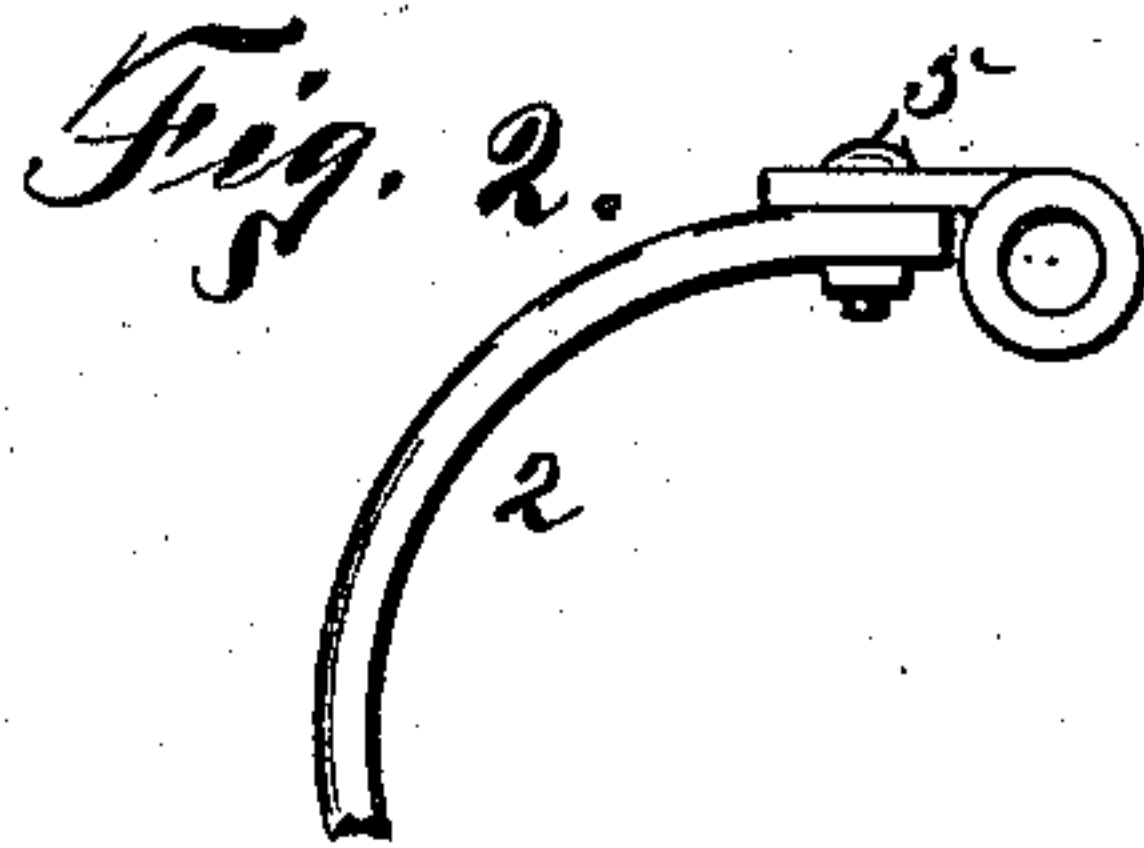
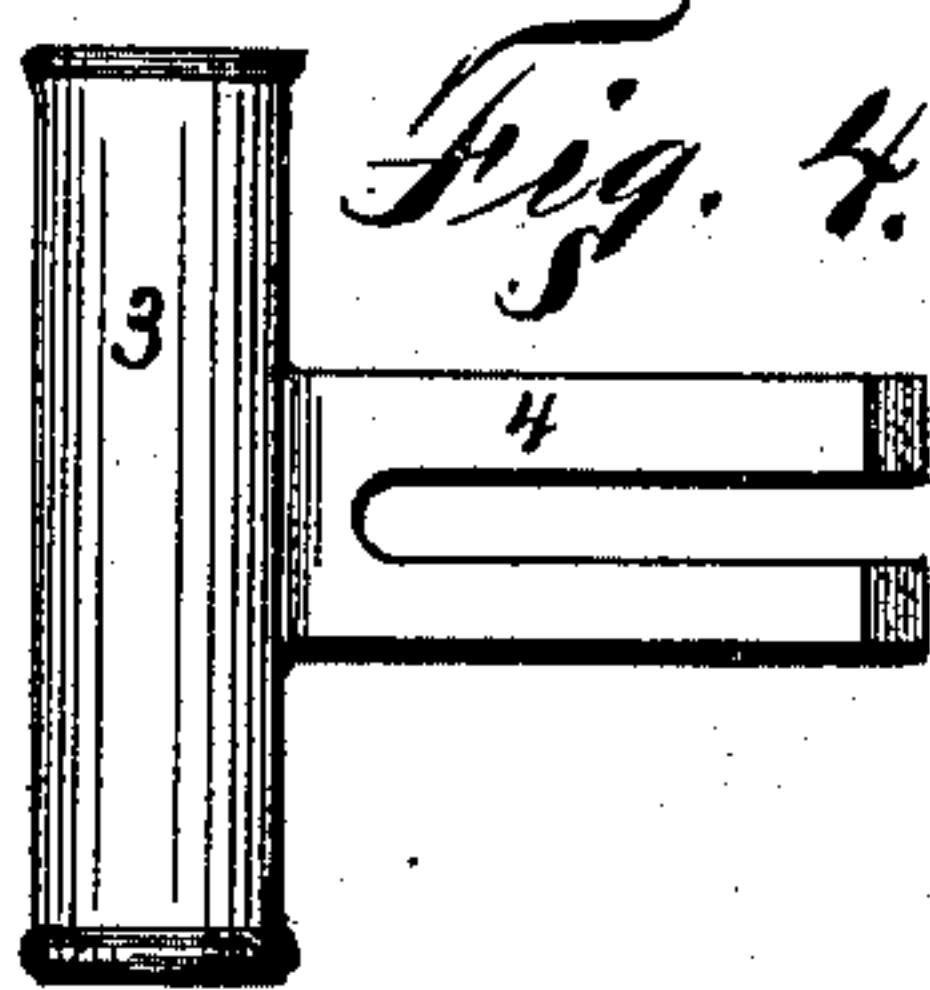
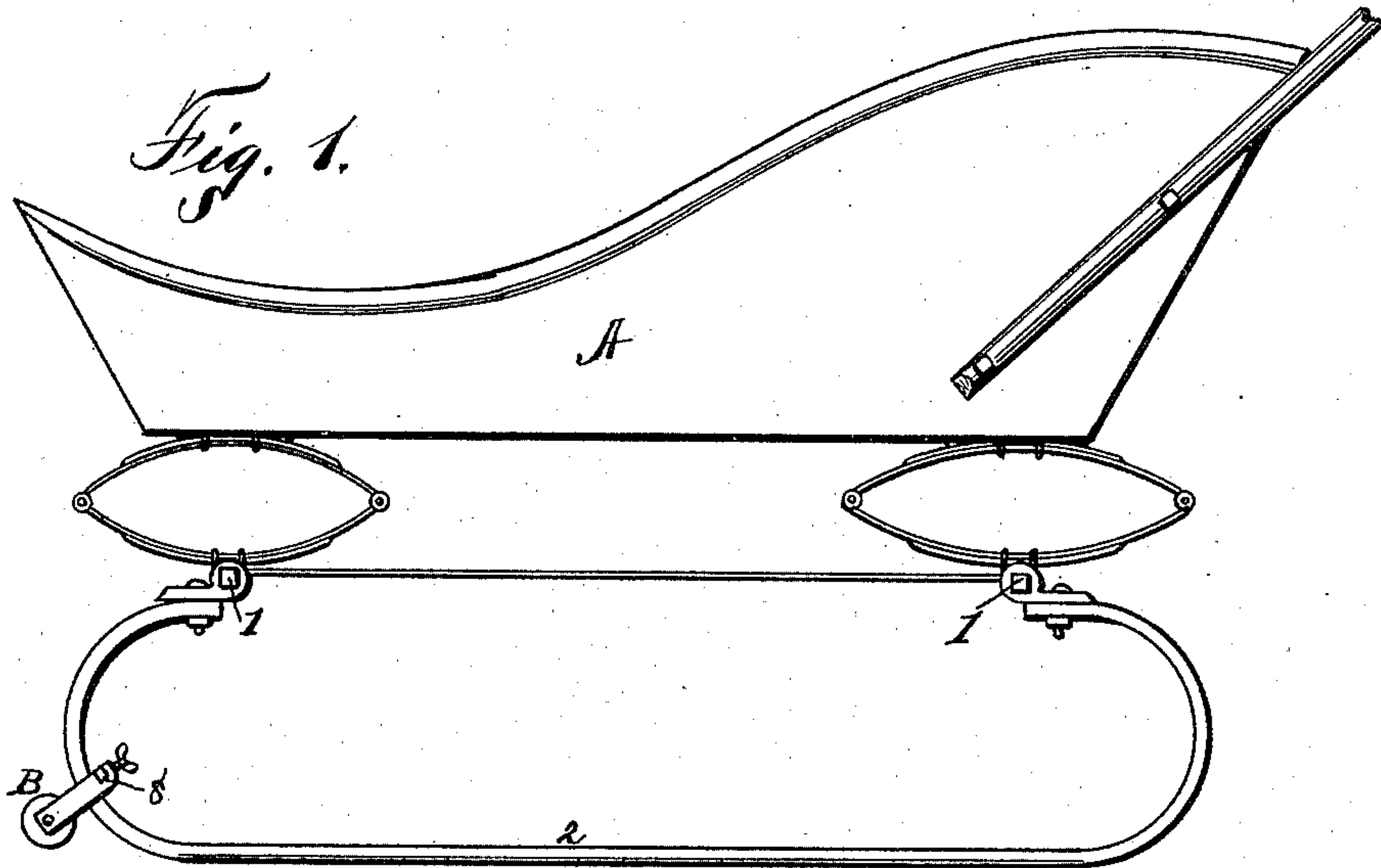


(No Model.)

B. D. KESTED.
SLEIGH RUNNER.

No. 470,576.

Patented Mar. 8, 1892.



WITNESSES:
H. A. Cushman,
C. B. Kinnear

INVENTOR.
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ATTORNEYS

UNITED STATES PATENT OFFICE.

BRADLEY D. KESTED, OF JOHNSTOWN, ASSIGNOR OF ONE-HALF TO MARTIN L. LEFLER AND WINFIELD S. LEFLER, OF SARATOGA, NEW YORK.

SLEIGH-RUNNER.

SPECIFICATION forming part of Letters Patent No. 470,576, dated March 8, 1892.

Application filed October 22, 1891. Serial No. 409,504. (No model.)

To all whom it may concern:

Be it known that I, BRADLEY D. KESTED, of Johnstown, in the county of Fulton, in the State of New York, have invented new and useful Improvements in Detachable Runners, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to detachable sleigh-runners adapted to be placed under an ordinary child's carriage, after the wheels have been removed, for the purpose of using the wagon as a sleigh in winter.

My object is to produce such a detachable sled provided with suitable and adjustable apparatus for securing it to the skein of the axle, and also provided with a detachable caster or roller adjustable, so that by tipping the vehicle forward or backward it may operate to roll over bare ground, and when again it is returned to its normal position it will slide along without interference.

My invention consists, first, in providing the upper parts of the detachable runners with adjustable means for securing them to the skein of the axle, and, second, in providing a detachable roller or caster for the purposes above set forth, and in the several other novel features of construction hereinafter described, and which are specifically set forth in the claims hereunto annexed.

It is constructed as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a carriage, the wheels being removed and provided with my detachable runners complete and showing a roller or caster secured thereto. Figs. 2 and 3 are views of the upper ends of the runners provided with an appliance for securing it adjustably to the skein of the axle. Fig. 4 is a top plan view of the appliance shown in Figs. 2 and 3. Fig. 5 is a side elevation thereof. Fig. 6 is an edge view of the caster, showing means for securing it to the runner. Fig. 7 is a top plan view of one end of the axle and one end of the runner secured thereto. Fig. 8 is a view of the box provided with an adjustable slotted arm.

A is an ordinary child's carriage constructed in the usual way, provided with axles 1 1, having skeins upon their outer ends, upon which the wheels rotate.

2 are runners, constructed as shown, and preferably of metal.

3 is a box adapted to fit the skein of the axle and provided upon one side with a slotted arm 4, and 5 is a bolt passing through an eye in the runner, which secures the arm 4 adjustably to the runner.

B is a caster or roller mounted in a bracket 6, which is provided upon its outer end with a groove 7 for the reception of the runner. The outer end of this bracket is provided with a transverse groove 8, into which is inserted the piece 9, after it has been placed upon the runner, and 10 is a set-screw passing transversely through the same for the purpose of securing the bracket adjustably to the runner.

It will be observed that by means of the box 3, with its slotted arm 4, I am able to adjust the height of the carriage-gear with respect to the runners by either placing it on top of the runner, as shown in Fig. 2, or by securing it to the lower face of the runner. (Not shown.) It will also be observed that I adapt the runners to carriages of different lengths between the axles by placing the box 3 either as shown in Figs. 2 or 3. It will also be observed that a caster or roller 3 may be adjusted either to the front part of the runner or to the rear and that it may be readily removed or replaced. It will also be observed that by securing the slotted arm 4 adjustably to the box 3 I can vary the distance between the runners.

Having described my invention, what I claim is—

1. The combination, with the runners, of a box adapted to fit the skein of the axle and having slotted arms, and means for securing said arms through the slot to the runners.

2. The combination, with the runners, of a box adapted to fit the skein of the axle and having slotted arms laterally adjustable secured thereto, as set forth.

In witness whereof I have hereunto set my hand this 9th day of October, 1891.

BRADLEY D. KESTED.

In presence of—

HOWARD P. DENISON,
C. B. KINNE.