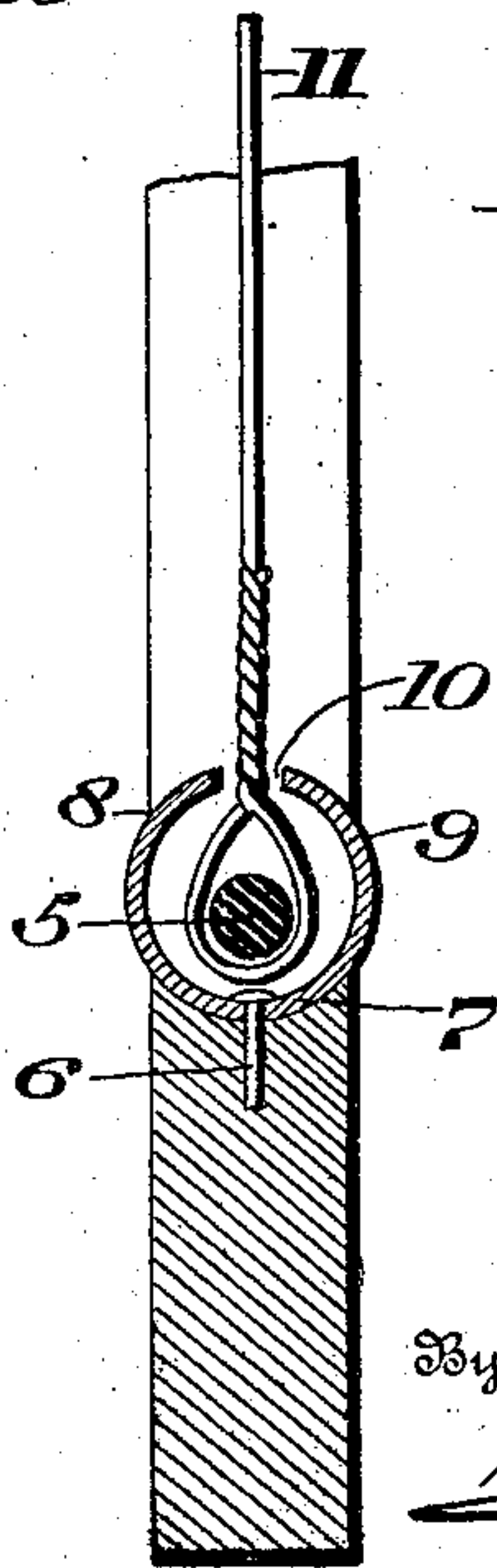
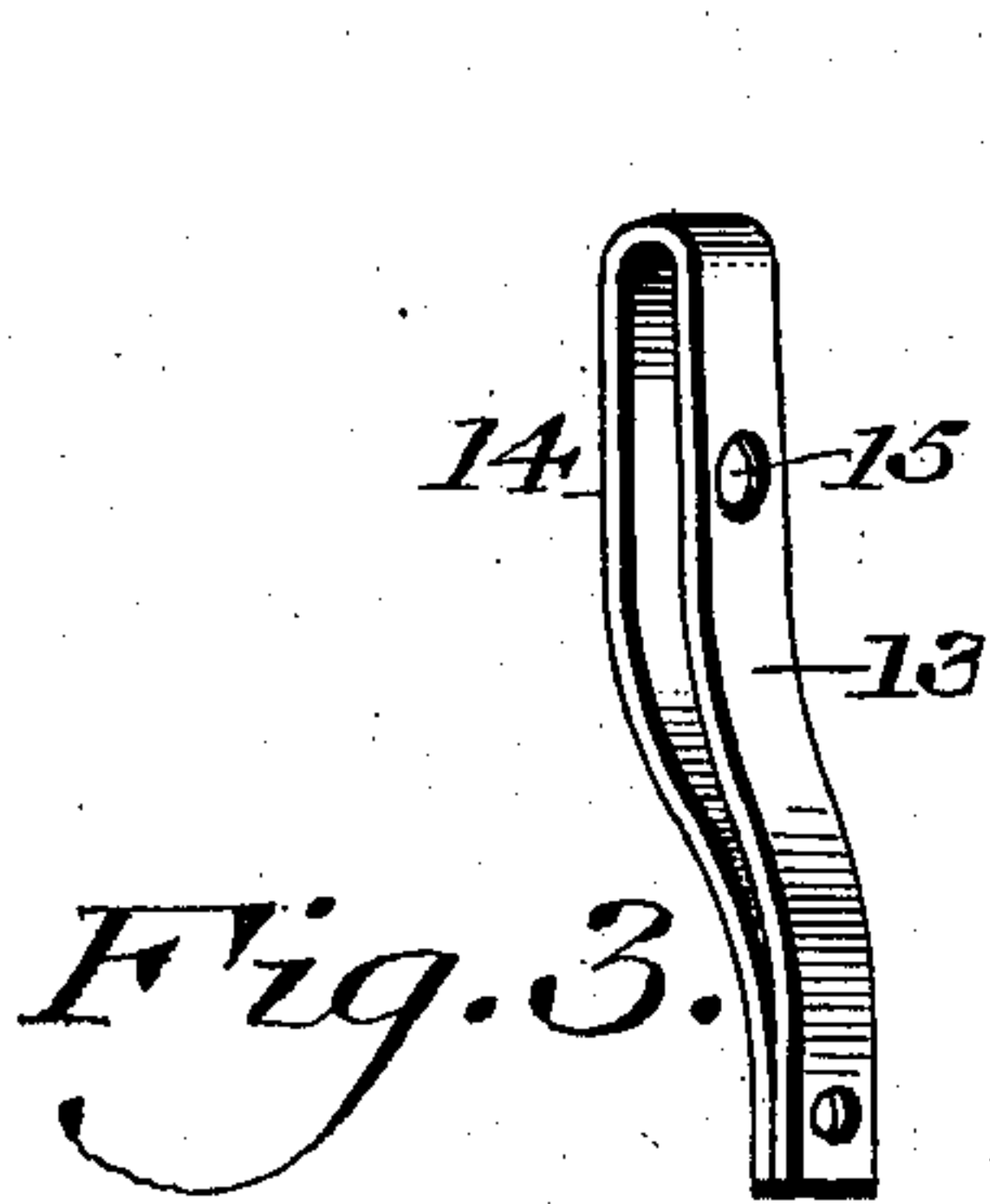
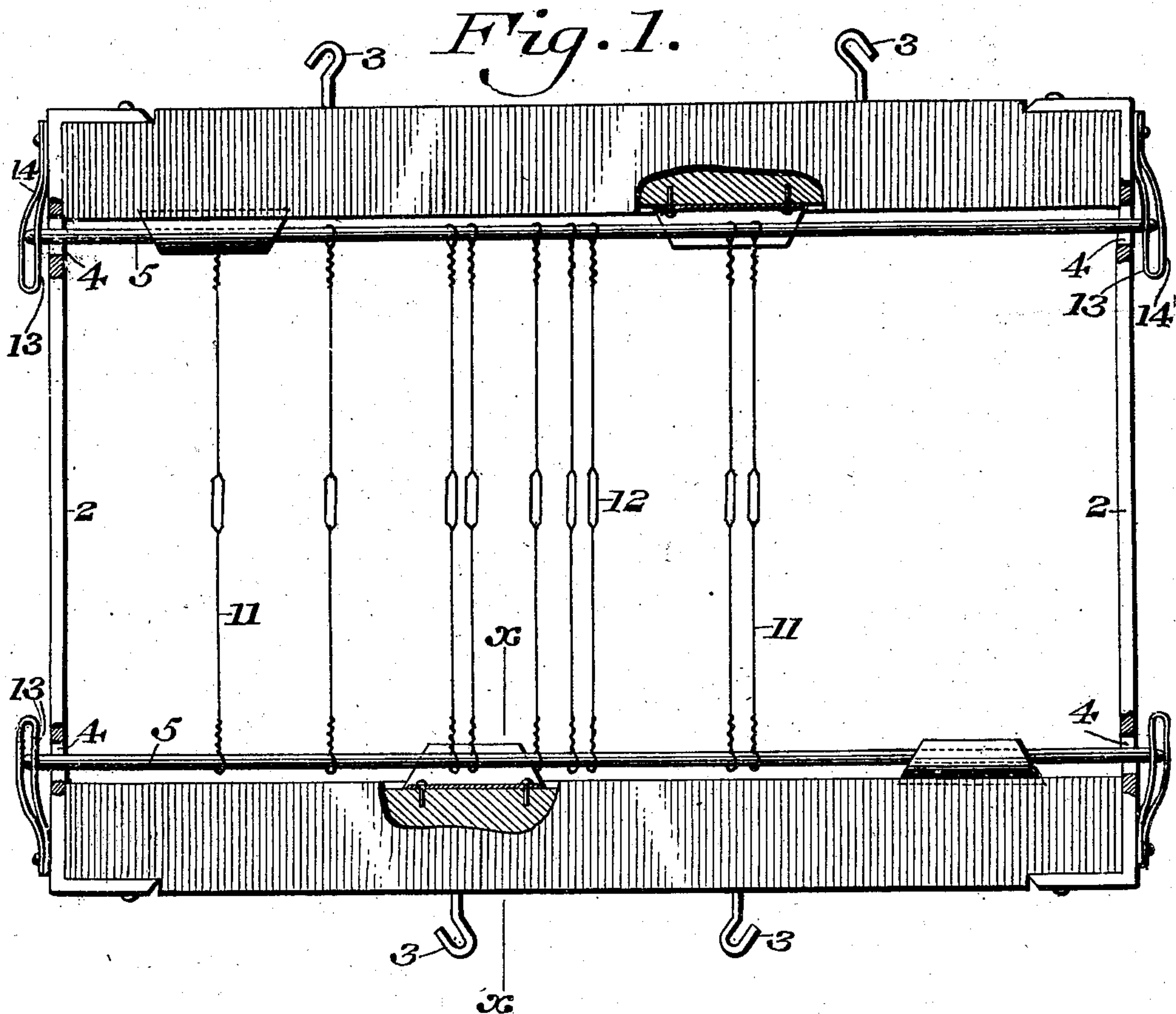


No. 889,655.

PATENTED JUNE 2, 1908.

C. E. BRIGGS.
HEDDLE FRAME.
APPLICATION FILED FEB. 26, 1907.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES E. BRIGGS, OF ASHTABULA, OHIO.

HEDDLE-FRAME.

No. 889,655.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed February 26, 1907. Serial No. 359,380.

To all whom it may concern:

Be it known that I, CHARLES E. BRIGGS, a citizen of the United States, residing at Ashtabula, county of Ashtabula, State of Ohio, have invented a new and useful Heddle-Frame, of which the following is a specification.

My invention relates to heddle frames and consists in providing means for supporting the heddle rod but permitting the free running of the heddles thereon.

It further consists in providing jaws for supporting the heddle rods and in forming a space or slot between the jaws in which the heddle can be freely moved.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

Figure 1 represents a partial elevation and partial sectional view of a heddle frame embodying my invention, showing only a few heddles in position thereon for the sake of clearness. Fig. 2 represents a sectional view on line $x-x$ Fig. 1. Fig. 3 represents a view of a heddle rod spring in detached position.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings. In heddle frames now in use the rods thereof are supported at suitable intervals by means of hooks which are connected with the frame and which pass beneath the heddle rod in order to support the same. This frequently causes what is known as reed marks in the cloth, as the heddle cannot move freely upon the rods and cannot come together nor slide along to their own level thus leaving a space between the heddles and causing the reed marks, as above stated. My invention is designed to overcome this defect and by reason of the same, reed marks in cloth are positively prevented, the advantages of which are evident, since in numerous cases the reed marks in the cloth are so pronounced as to amount to an imperfection and even when not such as to amount to an imperfection it would cause the goods to be considered as "seconds."

In the drawings I have shown a construction for carrying out my invention but it will be evident that other forms may be employed and other instrumentalities used which will accomplish the same results. I do not therefore desire to be limited in every

instance to the exact construction as herein shown and described.

1 designates a heddle frame having the usual side pieces 2 and the hooks 3 for the proper connection of the heddle, said side pieces having the openings 4 through which pass the heddle rods 5. Suitably connected with the frame 1 in the drawings by the screws 6, are the supports 7, which in the present instance are formed of the jaws 8 and 9 having the space or slot 10 between the ends thereof, said supports encircling the rod 5 and said slots 10 being of less width than the diameter of said rod 5. Mounted upon said rods are the heddles 11 which are in suitable connection with the rods and are provided with the usual eyes 12, said heddles being adapted to easily pass between the ends of the jaws 8 and 9 and are thus freely movable in the slots 10, whereby it will be seen that while the supports are adapted to suitably support the rods, the heddles can freely pass the same.

From the above it will be understood that when the threads are passed through the eyes 12 in each heddle, the latter will take its proper place and the cloth will be uniform throughout its entire surface, since the heddles, as before stated, can assume their proper place by reason of the fact that there are no obstructions to the free movement of the same and thus the reed marks are prevented from appearing on the cloth.

While I have shown in the drawings the jaws 8 and 9 as being formed integral, it will be evident that the same can be made separate and separately attached to the frame or the said jaws can be formed in any desired manner or size as may be most convenient.

Referring to Fig. 1 it will be noticed that the upper and lower supports are in staggered relation and that I have shown four supports connected with the frame, but it will be evident that the said supports can be arranged in any desired manner and any suitable number may be employed. In order to hold the rods 5 in suitable position in the frame, I employ the springs 13 and 14 adjacent the end of each rod, the inner spring 13 being provided with a suitable opening 15 through which the ends of the rods 5 pass so that side movement of the rods is prevented and the end of the rod 5 abuts against the outer spring to prevent lateral movement

of the rods. By these means it will be seen that the yielding connection is made between the frame and the rods, which latter will always be held in proper position.

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

1. In a heddle frame, heddle rods supported by said frame, intermediate jaws surrounding said rods normally out of contact therewith and forming a slot, and heddles on said rods freely passing said jaws, whereby the said heddles can move freely the entire length on said rods.

15 2. In a heddle frame, jaws carried thereby, and having a passage between the same, heddle rods supported by said frame to provide a space on all sides between the rods and said jaws, and heddles carried by said rods
20 and freely movable the entire length thereon and through said passage.

3. In a heddle frame, heddle rods, the ends of which pass openings in said frame, springs connected with said frame and each having
25 an opening for the reception of the said rods,

and springs adjacent said first mentioned springs adapted to hold said rods in said openings.

4. In a heddle frame, heddle rods, the ends of which pass openings in said frame, a 30 spring support for said rods and springs against which the ends of said rods abut to normally prevent displacement of the same.

5. In a heddle frame, heddle rods, the ends of which pass openings in said frame, a 35 spring support for said rods and springs against which the ends of said rods abut to normally prevent displacement of the same, jaws carried by said frame and having a passage between them, and said heddle rods be- 40 ing supported by said springs to provide a space on all sides between the said rods and said jaws, and heddles carried by said rods and freely movable thereon and through said passage.

CHARLES E. BRIGGS.

Witnesses:

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