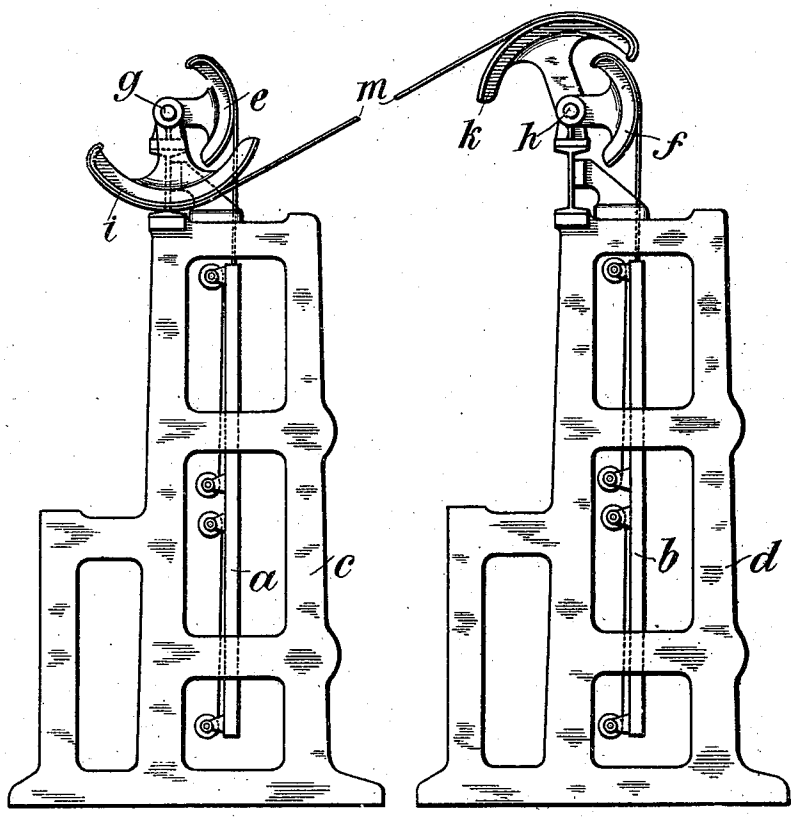
A. BOSSHARD.

FABRIC FRAME FOR EMBROIDERING MACHINES.

APPLICATION FILED MAY 5, 1910.

981,836. Patented Jan. 17, 1911.



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UNITED STATES PATENT OFFICE.

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FABRIC-FRAME FOR EMBROIDERING-MACHINES.

981,836. Specification of Letters Patent. Patented Jan. 17, 1911.

Application filed May 5, 1910. Serial No. 559,510.

To all whom it may concern:

Be it known that I, ARNOLD BOSSHARD, a citizen of the Republic of Switzerland, residing at Rebenstrasse, Arbon, Switzerland, have invented certain new and useful Improvements in Fabric-Frames for Embroidering-Machines; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

In embroidering machines the fabric frames, according to present practice, are counterbalanced by weights, whereby there is introduced into the machine a dead load, which quite uselessly has to be overcome by the operative in actuating the pantograph.

According to my invention special counterweights are dispensed with, two or more fabric frames being so coupled that they mutually balance each other. In this manner an operative is able to shift several fabric frames without having to exert himself more than is ordinarily necessary in moving a single such frame.

A practical embodiment of my invention is illustrated in the accompanying drawing, in which the figure is an elevation.

a and *b* are the fabric frames of two like embroidering machines *c d*, located one behind the other. These frames are suspended from shafts *g h* by means of sector-wheels *e f*. On the shaft *g* there is also mounted a sector-wheel *i*, and on the shaft *h* a sector-wheel *k*. These sector-wheels *i k* are shifted through an angle of 180 degrees relatively to each other, and they are connected by a steel-band *m*, or other suitable member. The arm of lever with which the frames *a b* respectively act on the shafts *g h*, is identical in each case, and likewise the arm of lever with which the band *m* by means of the sector-wheels *i k* respectively, acts on the shafts *g h*. Thus the frame of the one machine serves as counterweight for the frame of the other machine. With machines so grouped it is only necessary to couple a pantograph with the frame of the one machine. Actuation of the pantograph will then move not only the frame attached to it, but also the other frame, without any greater resistances having to be overcome than is the case when the frame attached to the pantograph is balanced by means of a counterweight in the ordinary manner. If the embroidering machines are arranged side by side, so that their frames lie in the same plane, the two frames are connected by a band or other suitable member, which is passed over pulleys.

By means of the new system of balancing embroidering machine fabric frames, the operative, without having to exert any more force than ordinarily, can move several frames instead of merely a single frame. For frames coupled as above described, on actuation by means of a common pantograph, offer the same resistance as a single frame of the same size in conjunction with a dead load as counterweight. In similar manner two or more frames belonging to the same machine can be coupled together, so that they balance each other without auxiliary means.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is:

In embroidering machinery, in combination, two fabric frames suspended one behind the other, a shaft located above each frame, a sector-wheel on each shaft, flexible means connecting each sector-wheel with the frame below it, a second sector-wheel mounted on each shaft, and flexible means connecting these two latter wheels, substantially as described.

In testimony that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

ARNOLD BOSSHARD.

Witnesses:

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