

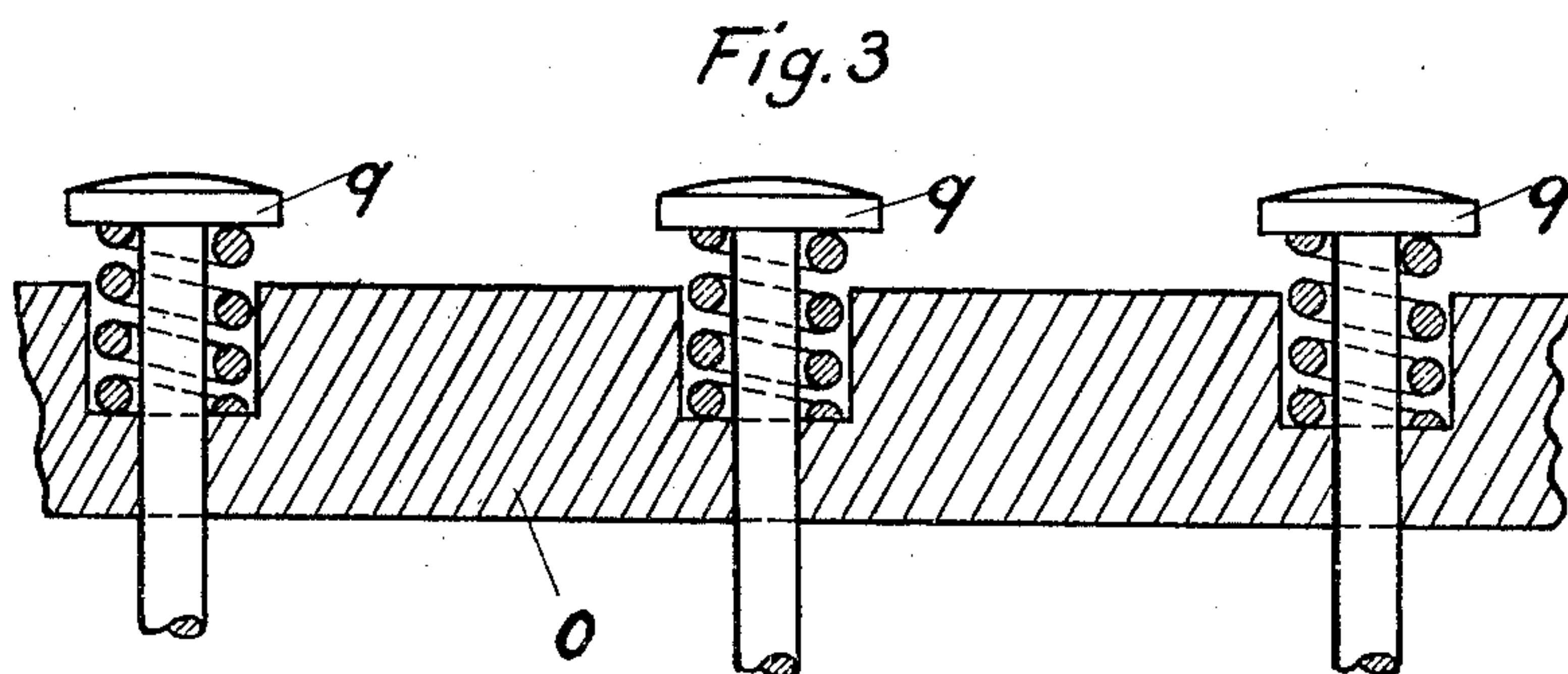
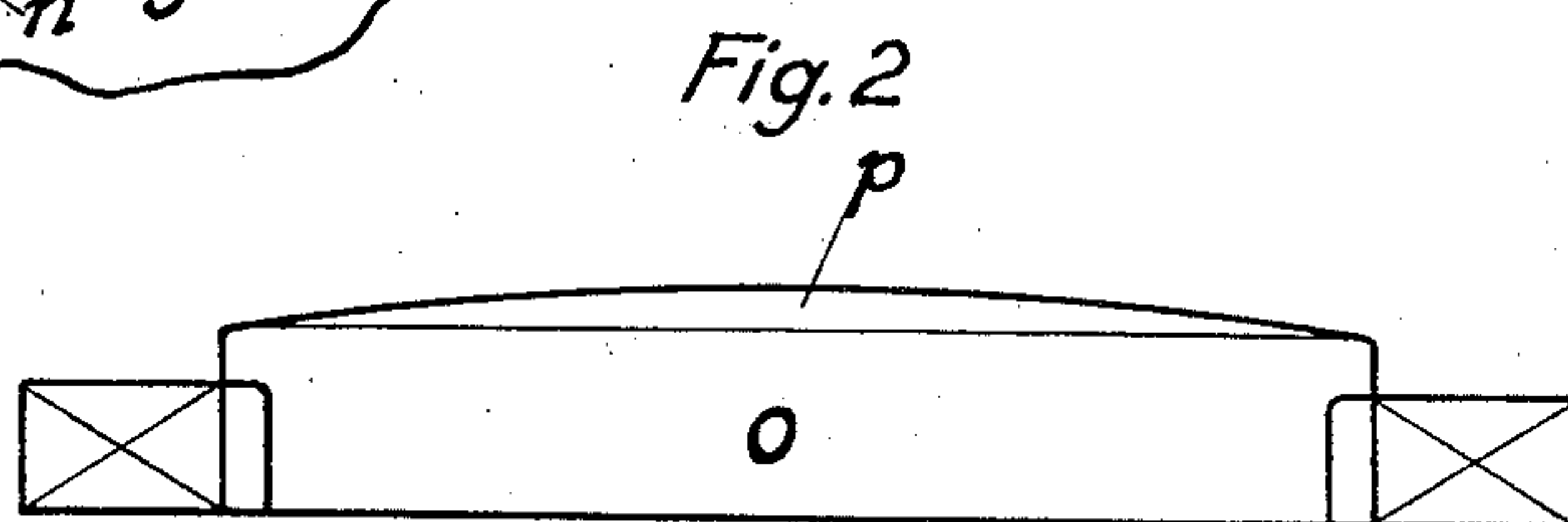
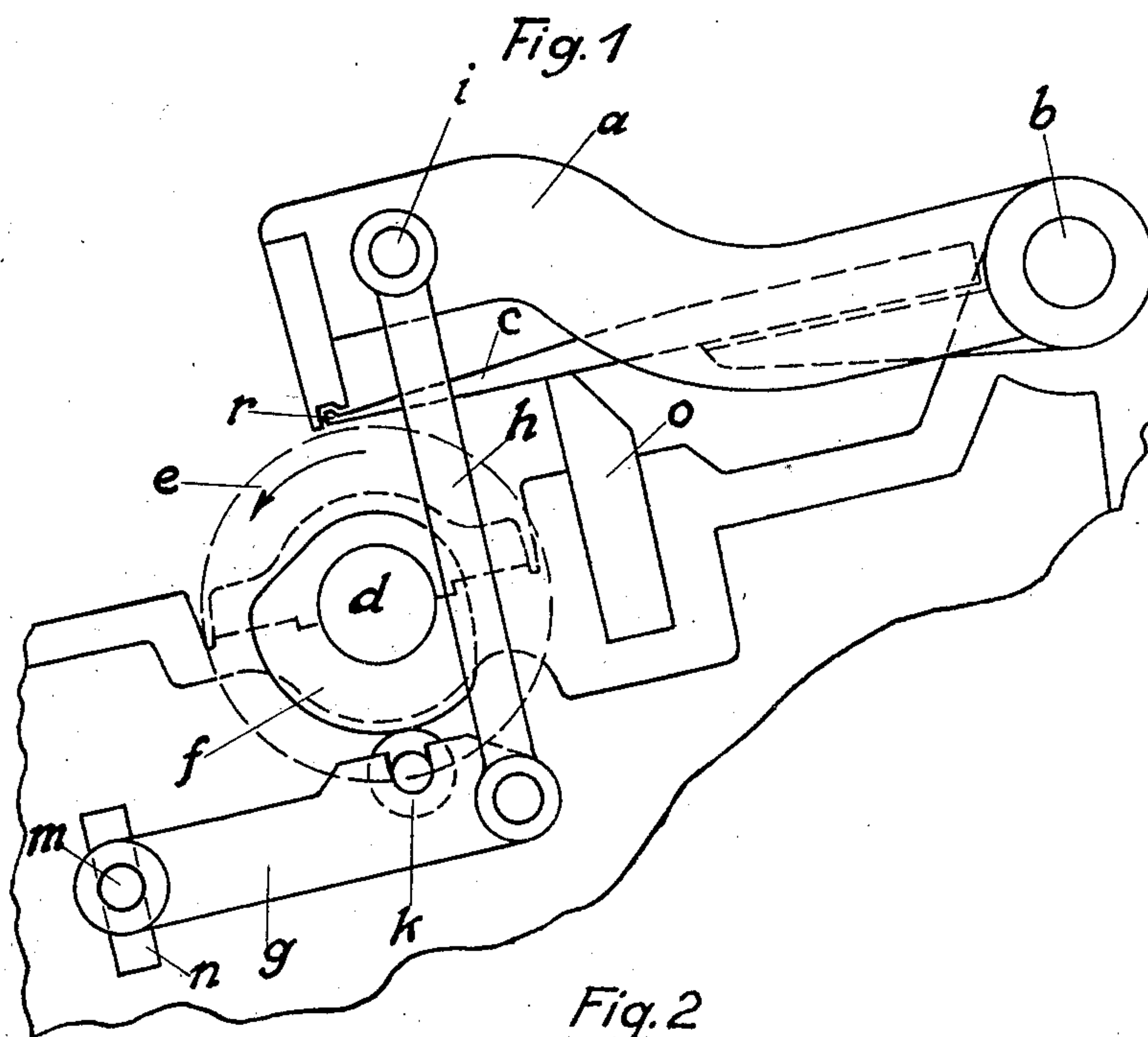
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2,125,360

COMBING MACHINE FOR WOOL, COTTON, AND THE LIKE

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## UNITED STATES PATENT OFFICE

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COMBING MACHINE FOR WOOL, COTTON,  
AND THE LIKE

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2 Claims. (Cl. 19—121)

This invention relates to a combing machine for wool, cotton and the like, in which the fibrous material to be combed is held in nippers.

It is known to equip, in combing machines with oscillatable nippers, the nipper guide with resilient rollers which are arranged on a lever mechanism and are destined to support the lower jaw of the nipper on its entire width as soon as the nipper is moved towards the combing cylinder. A resilient supporting of this type allows still a certain yielding of the nipper under the pressure exerted upon the same, so that the possibility exists that the nipper comes into contact with the teeth of the combing cylinder.

The invention has for its object to make it possible that the nipper moves toward the circular comb as near as possible without any danger of the nipper touching the circular comb. With this object in view the lower jaw of the nipper is rigidly supported during the closing of the nipper on its entire width by means of a stay, roll or the like, rigidly connected to the frames of the combing machine.

Yielding of the lower jaw under the strong pressure during the closing of the nipper is therefore absolutely excluded.

An embodiment of the invention is illustrated, by way of example, in the accompanying drawing in which

Fig. 1 shows in side elevation the arrangement for opening and closing the nipper.

Fig. 2 shows in front elevation a stay for supporting the lower jaw and

Fig. 3 shows another form of construction of the means for supporting the lower jaw.

The upper jaw *a* of each nipper is movable in the usual manner about a stay *b* connecting the frame members only one of which is visible in Fig. 1. The upper jaws *a* are actuated by cams *f* keyed one on each end of shaft *d* of the combing cylinder *e* by means of links *g* and *h*, which are interconnected. The links *h* are hingedly connected at their upper end at *i* with the front end of each upper jaw *a* and as near as possible to the gripping line *r* of the corresponding nipper. Each of the links *g* bears through the intermediary of a roll *k* against one of the cams *f*.

For the purpose of adjusting the amplitude of the stroke, the pivot pins *m* about which the links *g* oscillate, are arranged adjustable and fixable in slots *n* of the frame members.

During the closing movement of the nipper the lower jaw *c* bears practically on its entire width against a stay *o* inserted in the frame members so that the pressure of the nipper is also uniformly distributed over the entire width of the lower jaw. The stay *o* is preferably shaped to conform with the deflection of the jaws, which takes place owing to the closing pressure acting on both jaws, in that for instance the upper surface *p* of the stay is curved as shown in Fig. 2.

An elastic arrangement, as shown in Fig. 3, may be provided instead of the rigid supporting. Here a number of spring buffers *q* are mounted side by side in the stay *o*, which spring buffers are depressed during the closing of the nipper and bear with their heads against the stay *o*, as soon as the minimum distance between the nipper and the circular comb is reached.

In this manner, the heads rigidly support the lower jaw *c* in the lower final position of the buffers.

If desired, the spring buffers may be equipped with means for adjusting the elevation of their heads beyond the stay *o*.

I claim:—

1. In a combing machine, a pair of frame members, a nipper including an upper and a lower jaw supported by the frame members, and a rigid transverse stay rigidly connecting the frame members and arranged to support the lower jaw of the nipper throughout the width of the jaw.

2. In a combing machine, a pair of frame members, a nipper including an upper and a lower jaw supported by the frame members, a rigid transverse stay rigidly connected to the frame members, springs buffers projecting from the upper surface of the stay for engaging the lower jaw as it descends during the closing movement of the nipper, and means on the spring buffers for effecting a positive connection between the buffers and the stay in the lower final position of the buffers.

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