No. 632,726. Patented Sept. 12, 1899.

K. KURMANN.

MEANS FOR ATTACHING HEDDLES TO SHAFTS.

(Application filed Aug. 30, 1898.)

(No Model.)

Fig. 1.

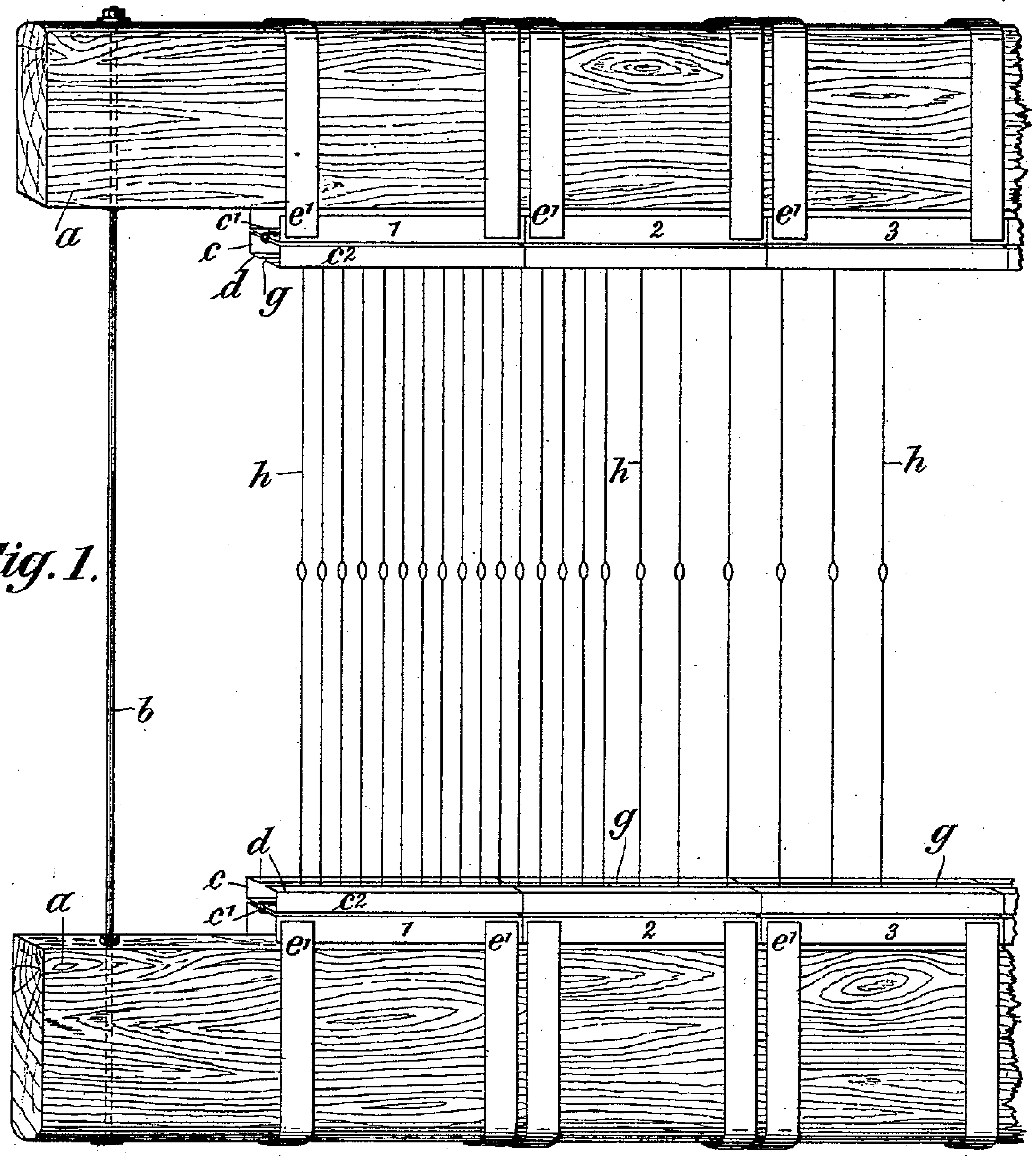


Fig. 3.

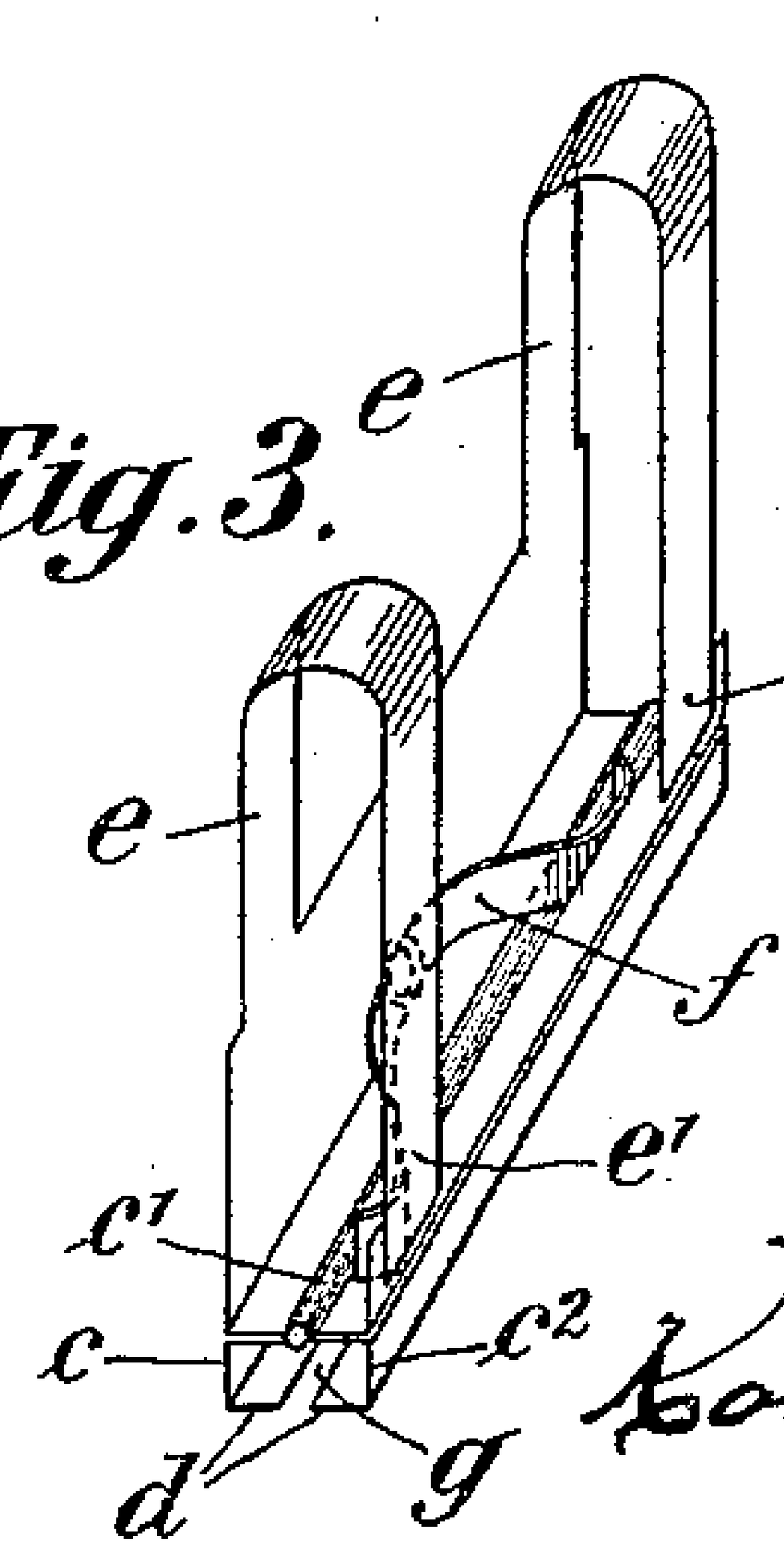
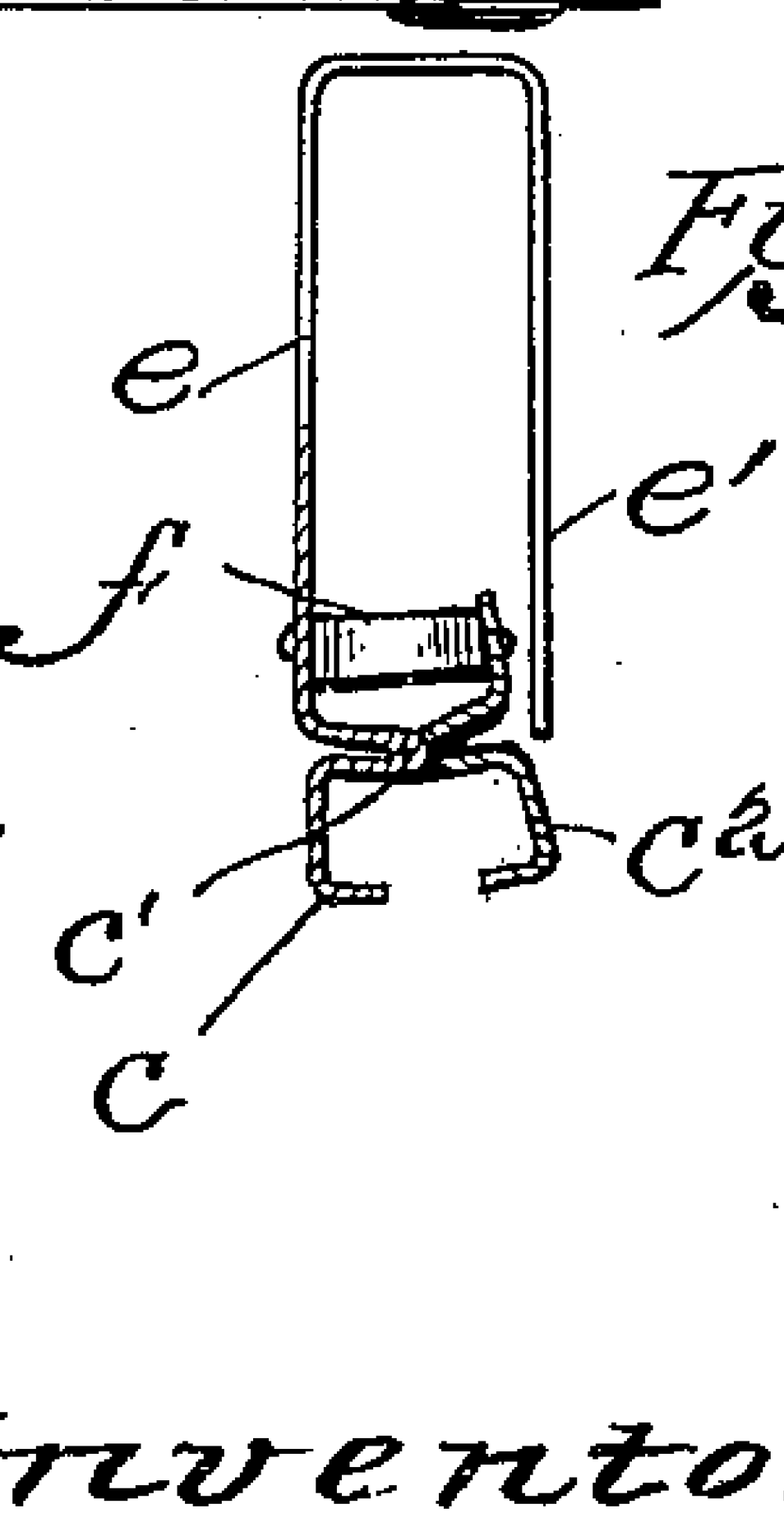


Fig. 2.



Witnesses.
E. R. Bolton
[illegible]

Inventor,
Konrad Kurmann

By [illegible]
his Attorneys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

KONRAD KURMANN, OF LODZ, RUSSIA, ASSIGNOR OF ONE-HALF TO JACOB MARCHEW, OF SAME PLACE.

MEANS FOR ATTACHING HEDDLES TO SHAFTS.

SPECIFICATION forming part of Letters Patent No. 632,726, dated September 12, 1899.

Application filed August 30, 1898. Serial No. 689,847. (No model.)

To all whom it may concern:

Be it known that I, KONRAD KURMANN, a subject of the Emperor of Russia, residing at Lodz, Poland, Empire of Russia, have invented certain new and useful Improved Means for Attaching Heddles to Shafts, of which the following is a full, clear, and exact description.

The object of the present invention is to provide a spring mechanism for connecting the heddles to the upper and lower shafts of the leaf, said mechanism allowing of a quick and convenient removal of damaged heddles and easy replacement of the same, means being also provided for regulating the pressure of the springs on the heddles below their heads.

In order to render the present specification more easily intelligible, reference is had to the accompanying drawings, in which similar letters of reference denote similar parts throughout the several views.

Figure 1 is a perspective view of a leaf, showing the improved connecting means for heddles. Fig. 2 is a detail end elevation of the said device with parts in section, and Fig. 3 a perspective view of the device.

The device consists of two gripping rails or battens having a U-shaped cross-section c c^2 and being hinged together at c'. The upper part of the rail c is prolonged upwardly, as at e, and bent around to form hooks e' e', which embrace the shaft of the leaf. The ends of the said hooks e' extend down far enough to lie against the upwardly-extending flange of the rail c^2, and thus, as will be seen from Figs. 2 and 3, the rails will be normally held by a spring f in a position to keep their under adjacent edges a slight distance apart and produce the slot g between the said edges d d. The spring f may be supported on the back e and presses against the inner side of the upwardly-extending flange of the rail c^2.

The heddles h are provided with heads which are retained between the edges of the slot g and rest on the flanges d d of the rails c c^2.

From the above description it will be seen that the amount of pressure of the spring f is immaterial, as the width of the slot cannot be varied thereby, the rail c^2 being stopped in its normal position by means of the ends e' of the hooks. The pressure of the spring need only be strong enough to keep the upper flange of the rail c^2 against the ends of the hooks e'.

If one of the heddles gets damaged or is defective, it can easily be removed by opening the slot g by pressing the rail c^2 back against the pressure of its spring. The heddle may then be taken out and a new one inserted in a very short space of time.

The shafts a a of the leaf are connected together by stout wires b b and nuts.

I claim as my invention—

1. A device for detachably securing the ends of the heddles to the shafts of the leaf consisting of two rails having lower inwardly-extending flanges and being hinged together, one part having an upwardly-extending side with downwardly-turned hooks thereon and the other part having an upwardly-extending flange to abut against the inner parts of the ends of said hooks, and a spring to retain said rail in abutment substantially as described.

2. The combination of U-shaped rails c c^2 having upper horizontal flanges hinged together at c' and lower horizontal flanges d d extending toward each other and having a slot between the same, an upwardly-extending plate e having hooked ends thereon bent downwardly and an upwardly-extending flange on the rail c^2 to rest against the inner side of said hooks, a spring f to retain said flange against said hooks in the manner and for the purpose substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

KONRAD KURMANN. [L. S.]

Witnesses:
JAN KURMANN,
H. LÜER.