No. 797,602. PATENTED AUG. 22, 1905.

F. OTT.

LOOM TEMPLE.

APPLICATION FILED DEC. 1, 1903.

FIG. I.

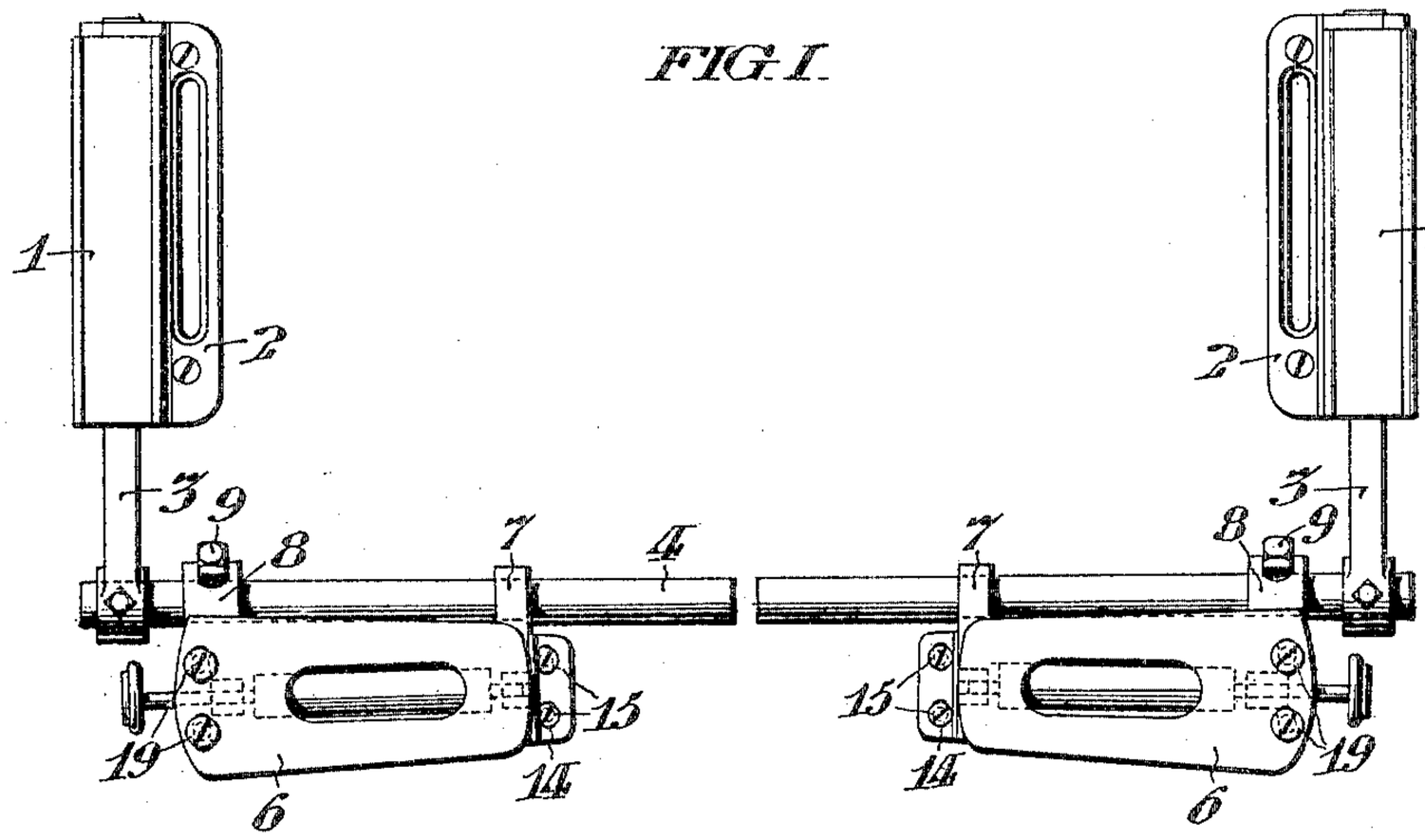


FIG. II.

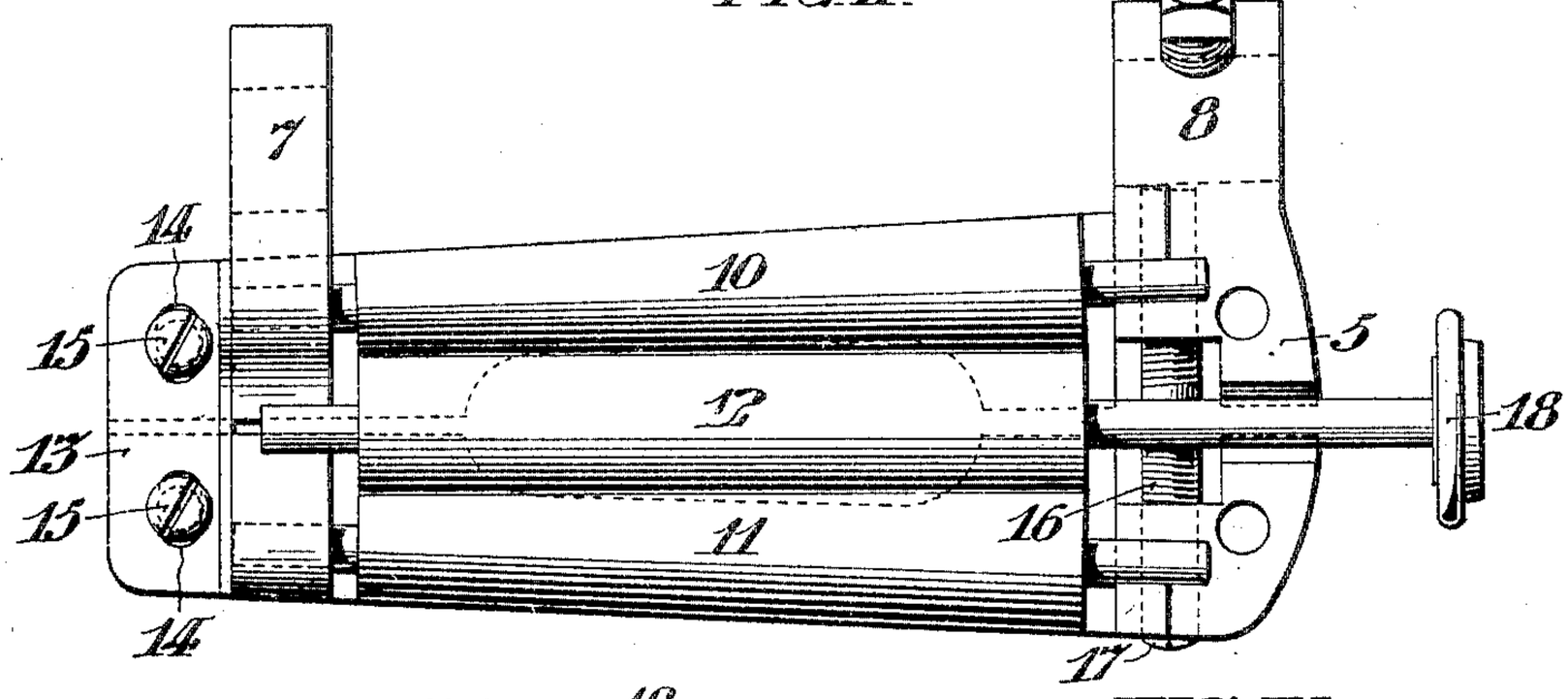


FIG. III.

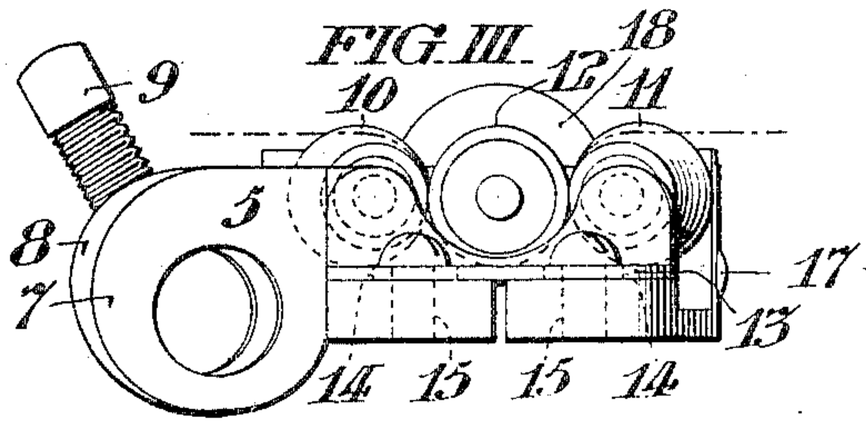
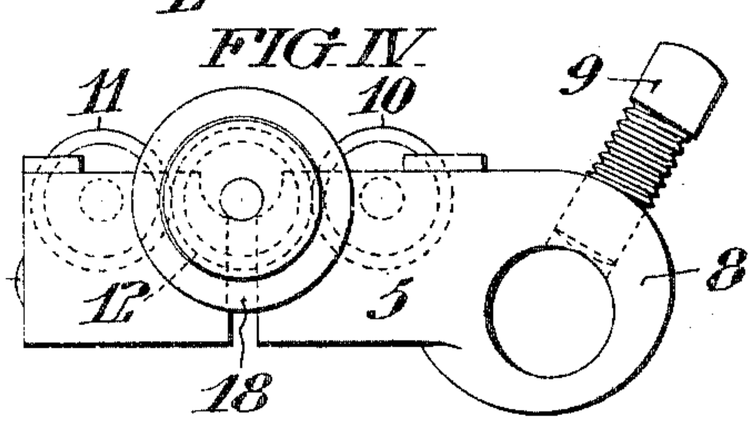


FIG. IV.



WITNESSES:

Clifton C. Hallowell

John C. Bergner.

INVENTOR:

FREDERICK OTT,

by his attorneys

Paige Paul & Fraley

ANDREW. B. GRAHAM CO., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FREDERICK OTT, OF WOONSOCKET, RHODE ISLAND, ASSIGNOR TO CROMPTON & KNOWLES LOOM WORKS, A CORPORATION OF MASSACHUSETTS.

LOOM-TEMPLE.

No. 797,602. Specification of Letters Patent. Patented Aug. 22, 1905.

Application filed December 1, 1903. Serial No. 183,323.

To all whom it may concern:

Be it known that I, FREDERICK OTT, of Woonsocket, in the State of Rhode Island, have invented certain new and useful Improvements in Loom-Temples, of which the following is a specification, reference being had to the accompanying drawings.

In the weaving of very fine fabric difficulty has been experienced in the use of loom-temples in which the temple-rollers are fitted with pointed teeth or corrugations. This is especially the case in the weaving of fine open fabric, such as gauze, where the threads are liable to be displaced by the pin-points of the ordinary temples now in use.

As hereinafter described, my invention comprises a loom-temple comprising a plurality of rollers which are devoid of pin-points or corrugations and which are provided with means for adjusting their axes so as to engage fabrics of different thicknesses.

My invention comprises the various novel features of construction and arrangement hereinafter described.

In the accompanying drawings, Figure I is a plan view of a pair of temples seen from above as they are mounted upon the breast-beam of a loom, the intermediate parts of the temple-bar being broken away. Fig. II is a similar view of one of the temple-heads, the top or upper jaw thereof being removed. Fig. III is an end view of the temple-head as seen from the inner end. Fig. IV is an end view of the same as seen from the outer end.

Referring to Fig. I, 1 is a casing provided with a slotted flange 2 for attachment to the breast-beam. 3 is a shank projecting from the end of the casing under the tension of a coiled spring contained within the casing. The shanks 3 3 are at opposite sides of the loom and carry between them the temple-bar 4, upon which the two temple-heads are adjustably set in proper relation to the fabric which is being woven by the loom. Each temple-head consists of a lower jaw 5 and an upper jaw 6. The lower jaw carries projecting lugs 7 and 8, through which the rod 4 passes, adjustment thereon being secured by a set-screw 9, set in the lug 8. Within the appropriate bearings formed in the lower jaw rest two conical rollers 10 and 11. These rollers are of equal size. Their surfaces are clothed with calfskin or other similar material. They are set with their inner ends closer together than their outer ends, thereby bringing their opposing surfaces nearly or quite parallel to each other. The upper jaw 6 has bearings for the single cylindrical roller 12. This roller is clothed in a manner similar to the conical rollers 10 and 11. When the jaws are placed in proper juxtaposition, the cylindrical roller 12 fits snugly between the two conical rollers, the axes of the three rollers being in the same horizontal plane, as seen in Figs. III and IV. To accomplish the accurate adjustment of the tension between the rollers, the lower jaw is subdivided lengthwise into two separate pieces or members, each one of which carries both bearings for one of the conical rollers. The inner ends of these members are united by means of a plate 13, having slots 14 14, through which pass screws 15 15, each set in one of the members. By the adjustment of the screws in the slots the inner ends of the members may be set at the proper distance apart. The outer ends of the members are adjustably united by means of the transverse shaft 16, the extremities of which are oppositely screw-threaded and received within similarly internally threaded apertures in the members of the lower jaw of the temple-head. The exposed extremity of this shaft may be turned by a screw-head 17, rotation of which draws the outer ends of the members nearer together or farther apart, according to the direction of rotation. It is convenient to have the axis of the cylindrical roller 12 projected from the outer end of the temple, where it may be provided with a thumb-head 18. The two jaws are set together by means of screws 19 19 entering the lower jaw and passing through slots in the upper jaw. The direct contact of the jaws occurs only at the outer end. Otherwise they are separated by a sufficient space to permit the free passage of the fabric between the jaws, its course being over the two conical rollers and under the cylindrical roller, as indicated in Fig. III.

The roller 10 is preferably set with its axis substantially parallel to the temple-bar or, what is the same thing, to the cross-line of the fabric. As a result the roller 12 is inclined so that its inner end is nearer to the take-up roller of the loom than is its outer end. The conical roller 11 is slightly more inclined in the same direction. With a set of rollers thus shaped and adjusted there is imparted to the edge of the fabric as it is

drawn through them a steady but gentle endwise pull, maintaining the entire fabric at all times under a proper cross tension and preventing sagging of the selvage.

Having thus described my invention, I claim—

1. In a loom-temple, the combination of contiguous rollers with their axes set in the same plane; and, means for adjusting said axes in relation to each other in the line of said plane.

2. In a loom-temple, the combination of contiguous rollers with their axes set in the same horizontal plane; and, means for adjusting said axes in relation to each other in the line of said plane.

3. In a loom-temple, the combination of three rollers with their axes set in the same horizontal plane, the two outermost rollers being provided with means of adjustment in the line of said plane.

4. In a loom-temple, an upper jaw carrying a cylindrical roller; a lower jaw divided into two members each carrying a conical roller; means for adjusting the distance between the two members; and means for uniting the two jaws so as to bring the axes of the three rollers in a plane parallel to the fabric.

5. In a loom-temple, an upper jaw carrying a cylindrical roller; a lower jaw divided into two members each carrying a conical roller; means for uniting the two jaws so as to bring the axes of the three rollers in a plane parallel to the fabric; and, means for adjusting the members of the lower jaw, consisting of a transverse shaft passing through both members, the extremities of which are oppositely screw-threaded and received within internally-threaded apertures.

6. In a loom-temple, an upper jaw carrying a cylindrical roller; a lower jaw divided into two members each carrying a conical roller; means for uniting the two jaws so as to bring the axes of the three rollers in a plane parallel to the fabric; and, means for adjusting the members of the lower jaw, consisting of a plate having slots through which pass screws set one in each of the members of the lower jaw.

In testimony whereof I have hereunto signed my name, at Woonsocket, in the State of Rhode Island, this 28th day of November, 1903.

FREDERICK OTT.

Witnesses:

WALTER G. HARTFORD,

GEO. R. SMITH.