

G. F. SIMON.  
 Temple for Weaving Tubular Fabrics.  
 No. 218,074. Patented July 29, 1879.

Fig. 1.

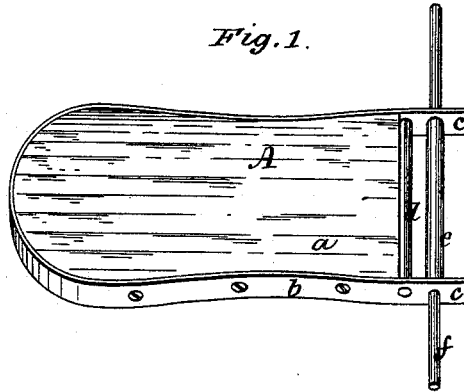
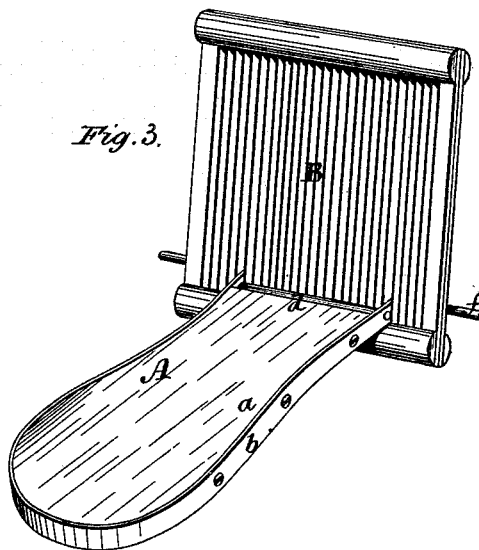


Fig. 2.



Fig. 3.



Witnesses:  
 Philip F. Larned  
 A. B. Caldwell.

Inventor:  
 Gottlieb Friedrich Simon.  
 By *Wm. C. Ward*  
 Attorney

# UNITED STATES PATENT OFFICE.

GOTTLIEB F. SIMON, OF BRISTOL, RHODE ISLAND.

## IMPROVEMENT IN TEMPLES FOR WEAVING TUBULAR FABRICS.

Specification forming part of Letters Patent No. **218,074**, dated July 29, 1879; application filed May 2, 1878.

### *To all whom it may concern:*

Be it known that I, GOTTLIEB FRIEDRICH SIMON, a subject of the King of Saxony, residing in Bristol, in the county of Bristol and State of Rhode Island, have invented certain new and useful Improvements in Temples for Weaving Tubular Fabrics; and I do hereby declare that the following specification, taken in connection with the drawings furnished, and forming a part thereof, is a clear, true, and complete description of my invention.

My improvements relate to that class of temples which reciprocate to and fro longitudinally within the fabric, with a movement corresponding more or less closely with the movements of the lay of the loom; and the objects of my improvements are simplicity in construction, reliability in operation, and a perfect support for the fabric as against the draft on the filling at the time the shuttle makes its flight, and also a perfect support close to the face of the reed at the time of making its beat.

My invention, mainly, consists in the combination, with a reed, of a temple mounted on the face thereof, and adapted at its front end to occupy a tubular fabric and support it against the draft on the filling, and at its rear end to support the fabric when the reed makes its beat.

My invention consists, further, in a temple which is provided with means for flexibly attaching it to a reed, so that it may be moved therewith to and fro by the lay of the loom.

My invention further consists in the combination, with a reed, of a temple which is flexibly connected thereto, and is reciprocated therewith to and fro by the lay of a loom.

To more particularly describe my invention, I will refer to the accompanying drawings, in which—

Figure 1 represents, in perspective, one of my temples. Fig. 2 represents the same in lateral section. Fig. 3 represents, in perspective, a reed with one of my temples attached thereto.

My temple A may be composed wholly of metal, or partly of wood or other light material. In the drawings it is shown to be composed partially of wood *a*, of a length somewhat greater than the distance moved by the

reed with which it is to be used, and having a rounded and a straight end, and slightly concave sides. The wooden portion is inclosed within a metallic rim, *b*, which may be flat or half-round, and secured by means of screws or studs with countersunk heads to insure a smooth surface. The metallic rim *b* at the straight end of the temple is longer than the wooden portion, as at *c*, constituting ears, by which the temple is connected with the reed. These ears are provided with holes for the reception of rolls *d* and *e*, which are separated by a space considerably greater than the width of the dents of the reed with which the temple is to be used.

It is not essential that the roll *d* be capable of rotation; but its rounded surface is desirable. The roll *e* is loosely mounted on a rod, *f*, which is snugly fitted to the holes in the ends of the ears *c*.

The reed B is of the form commonly used in weaving hydraulic hose, and is provided with strong heavy dents. The temple and reed are flexibly connected, as if with a hinge-joint, by means of the ears *c*, outer roll, *e*, and its rod *f*. The ears *c* are considerably thinner than the spaces between the dents of the reed, and the temple and reed are so connected that the temple may be freely inclined up or down to correspond with the upper or lower portions of the shed opened for the passage of a shuttle.

When applied for use the temple is interposed between the two sets of warp, and the end thereof next the reed is moved up or down at the opening of each shed, so that the shuttle may pass under or over it and the warps, which move with the temple, while its opposite end remains within the fabric.

It will be seen that when the reed is at its most rearward position the rounded end of the temple will be within the fabric, and afford proper resistance to the draft on the filling at the terminal movements of the shuttle, and that when the reed is making its beat the fabric will be thoroughly supported close to the face of the reed.

The temple, instead of being solid, as shown, may be composed merely of the metallic rim, laterally braced by cross-pieces of wood or wire.

Instead of being flat on top, as shown, the temple may be rounded, so as to be oval in cross-section, and this form is sometimes desirable.

It is to be distinctly understood that I make no claim to a "former" mounted on the face of a reed for weaving tubular fabrics adapted to enter the fabric only at the time the beat is made, for such a device, not being within the fabric at the time the shuttle makes its flight, has no power to resist the draft on the filling, and it cannot therefore operate like my temple, which, being always within the fabric, offers a perfect resistance to the draft on the filling, and prevents the fabric from being unduly drawn inward or contracted, regardless of the degree of shuttle-tension which may be employed.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. The combination, with a reed for weaving tubular fabrics, of a temple mounted on the face of the reed, and adapted at its outer end to occupy the interior of the fabric and support it against the draft on the filling, and at its rear end to support the fabric when the beat is made, substantially as described.

2. A temple for weaving tubular fabrics provided with means for flexibly connecting it with a reed, substantially as described.

3. The combination, with a reed, of a temple flexibly connected to the reed and reciprocated therewith, substantially as described.

GOTTLIEB FRIEDRICH SIMON.

Witnesses:

J. HENRY WEED,

I. F. WILLIAMS.