

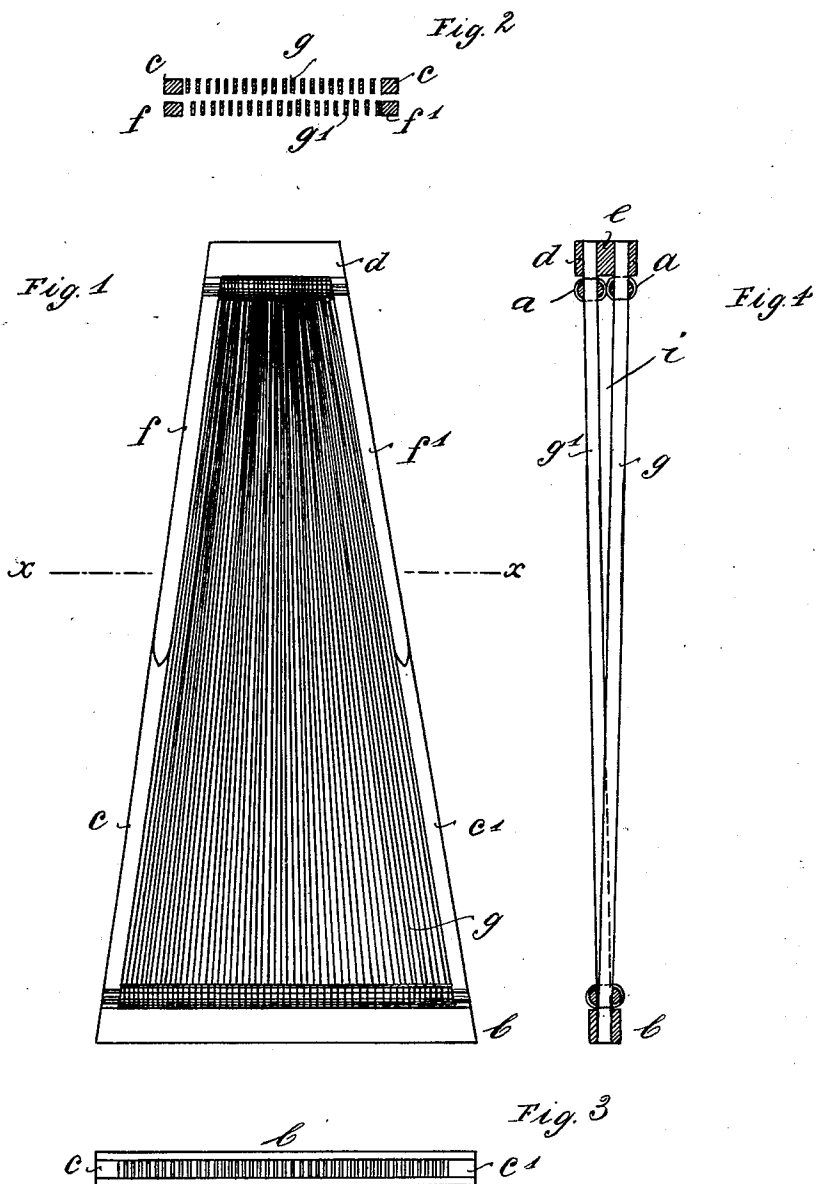
No. 700,593.

Patented May 20, 1902.

R. WILMS.
LOOM REED.

(Application filed Aug. 16, 1901.)

(No Model.)



Witnesses:
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REMY WILMS, OF BARMEN, GERMANY.

LOOM-REED.

SPECIFICATION forming part of Letters Patent No. 700,593, dated May 20, 1902.

Application filed August 16, 1901. Serial No. 72,258. (No model.)

To all whom it may concern:

Be it known that I, REMY WILMS, a subject of the Emperor of Germany, residing in the city of Barmen, Empire of Germany, have invented a new and useful Improvement in Loom-Reeds, of which the following is a full, clear, and exact specification.

Loom-reeds have heretofore been constructed and are shown, for example, in German patent to Handeler and Mesenholl, No. 48,713, of January 20, 1899, and issued September 27, 1899, in which for the purpose of diminishing the friction of the threads the dents are transposed at one end, so that the warp-threads are subjected to compression only at the wide end of the reed. In these reeds the dents are fastened or secured at their transposed ends in one bridge-piece. Such fastening method permits but a small degree of transposing of the dents or rows of slips. Consequently such reeds afford but little diminishing of friction, since the threads are still subjected to considerable compression between the dents.

In the reed forming the subject of the present invention each row of dents is united in a separate bridge-piece and the transposing of the rows of dents is effected by providing between such rows of dents spaces of a size greater than half the width of the dents and in which spaces the threads will always lie free on one side of each dent. This arrangement is of importance in reeds for weaving bands of cloth having a variable width, for which purpose, as known, trapeze-shaped reeds having an up-and-down movement in the lay are employed. In these reeds, however, such bands or ribbons can be produced only in inferior qualities, because the dents at the narrow side of the reeds stand so close together that on account of the consequent friction but few threads can be passed through.

In the annexed drawings, Figure 1 is a face view of the new reed. Fig. 2 is a horizontal sectional view at line *x x*, Fig. 1. Fig. 3 is a bottom view. Fig. 4 shows a vertical section of a reed with two rows of slips or dents.

Like characters refer to like parts in all the figures.

The dents *g g'* are secured at the wide end

of the reed side by side in a plane, while at the narrow end *d* every alternate dent is transposed, so as to provide at such narrow end two rows of dents, each row being engaged or united by a separate bridge-piece *a a*. The strip *e*, separating the dent-rows, provides between the latter the spaces *i*, which is of great importance in the trapeze-shaped reeds, since the dents must be placed or distributed at the narrow end upon a smaller reed width.

Laterally the rows of dents are provided with the shanks *c c' f f'*, which are fastened in the reed ends *a* and *b*.

Through the arrangement of rows of dents, each row being engaged or united, as described, by itself and by the transposing of the same from each other and the consequent intermediate spaces, the space between the dents of each row is enlarged compared with reeds having only two rows of dents.

What I claim is—

1. A reed having at one end transposed rows of dents, and separate bridges made to respectively engage or unite each row, said dents being transposed or separated to such an extent that throughout a portion of the reed a space is formed between the dents in the plane of the reed so as to allow the warp-threads in this part to lie free at one side of each dent and thereby prevent compression and consequent friction of the threads, substantially as described.

2. A reed having at one end transposed rows of dents, and separate bridges made to respectively engage or unite each row, said dents being transposed or separated to such an extent that throughout a portion of the reed a space is formed between the dents in the plane of the reed so as to allow the warp-threads in this part to lie free at one side of each dent and thereby prevent compression and consequent friction of the threads said dents being arranged in rows to insure diminished friction and allow narrowing of the contracted ends of trapeze-shaped reeds, substantially as described.

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