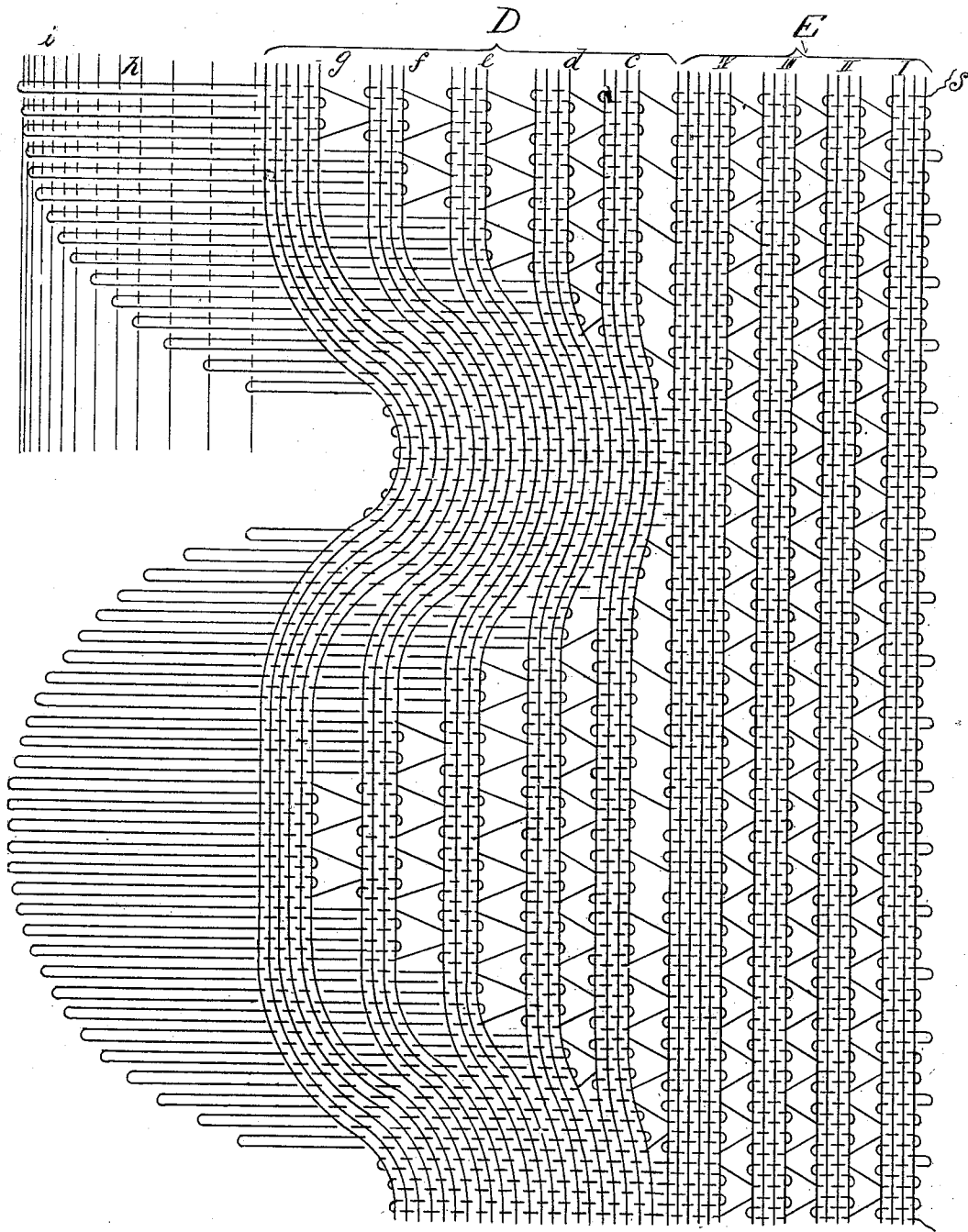


No. 764,208.

PATENTED JULY 5, 1904.

A. RONSDORF.
WOVEN LACE FABRIC.
APPLICATION FILED JUNE 16, 1902.

NO MODEL.



Witnesses
Otto Bunn
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Att'y

UNITED STATES PATENT OFFICE.

AUGUST RONSDORF, OF AMSTERDAM, NETHERLANDS, ASSIGNOR TO
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WOVEN LACE FABRIC.

SPECIFICATION forming part of Letters Patent No. 764,208, dated July 5, 1904.

Application filed June 16, 1902. Serial No. 112,014. (No specimens.)

To all whom it may concern:

Be it known that I, AUGUST RONSDORF, a sub-
ject of the Emperor of Germany, residing at
Amsterdam, in the Kingdom of Netherlands,
have invented a new and useful Improvement
in Woven Lace Fabrics, of which the follow-
ing is a specification.

My invention has for its object the produc-
tion of lace fabrics on looms in imitation of
hand-made lace, and particularly of such laces
having arc-shaped bottom portions. The
method of making such laces comprising a more
or less broad border, a partly-open, partly-
closed woven middle portion, and an arc-shaped
bottom part consists in the following: In order
to make the border or upper portion of the
lace, the warp-threads, which are governed by
heddles, are bound more or less dense by the
picks of weft, while for the formation of the
middle portion or pattern groups of warp-
threads are arranged which, being carried in
other heddles, are put closely together or
drawn asunder, so that there are formed
striped patterns changing with spots or the
like objects. For making the arc-border the
weft-threads are carried over a number of
warp-threads, which being raised and lowered
allow loops to be made, said warp-threads be-
ing removed afterward.

My invention may be more clearly under-
stood by means of the accompanying draw-
ing, which shows the fabric produced by my
method on an enlarged scale.

The portion marked by the reference-letter
E represents the border of the fabric, which
is of usual and known construction. By the
reference-letter D is marked the middle por-
tion. It consists of a number of warp-threads
which are arranged in groups, as shown, and
which may be at will drawn asunder or closely
put together, so that a spot or the like may ap-
pear in the fabric, as shown. The border is
formed by the weft-thread, which returns over
more or less warp-threads, so that loops are
formed by the weft and the border is shaped
in arc form.

The pattern-forming threads I II III IV of
the border E, lying in groups, are bound, for

instance, by the pick of weft *s*, which, passing
first the threads I of the group E, then passes
the threads II, binding them thrice and also
binding in the same way the threads III and
IV. In the same manner the weft-thread *s*
crosses the groups *c d e f g* of the warp-threads
D, forming then a long loop *h*, for which pur-
pose it passes a number of warp-threads *i*, that
have been not raised. After returning over
the last of these threads *i* the same are raised,
so that the loop *h* is made. Now the weft *s*
runs in the same manner back to the threads I,
and so on to and fro, forming with the threads
E the upper border, with threads D the pat-
tern, and by means of threads *i* the arc.
The pattern is formed, as before described, by
adjusting the groups *c d e f g* with decreas-
ing arc, which takes place by employing a
smaller number of threads *i*. The groups of
D are gradually closely put together, thus
forming a spot or like object.

In order to allow the weft to be laid in the
fabric as described, the shuttle is driven in
the usual manner by a pinion and a rack, and
the latter is connected in any suitable manner
to the jacquard-machine, which, according to
the pattern, controls the movement of the
shuttle by the jacquard-cards, so that the
shuttle is driven a more or less long way
through the fabric. Instead of a jacquard-
machine there may be with the same effect
other means used for reciprocating the shuttle
to lay the weft.

What I claim, and desire to secure by Let-
ters Patent, is—

As an article of manufacture a lace fabric,
having a border formed of groups of warp-
threads arranged in straight lines, a group of
warp-threads being partly arranged in straight
lines and partly drawn together and laid in
curved lines, the last group of these threads
forming the other border and a weft-binding,
said weft being arranged in loops of different
length as shown and described.

AUGUST RONSDORF.

Witnesses:

AUGUST SIEGFRIED DOCEN,
PAUL STAAL.