

(No Model.)

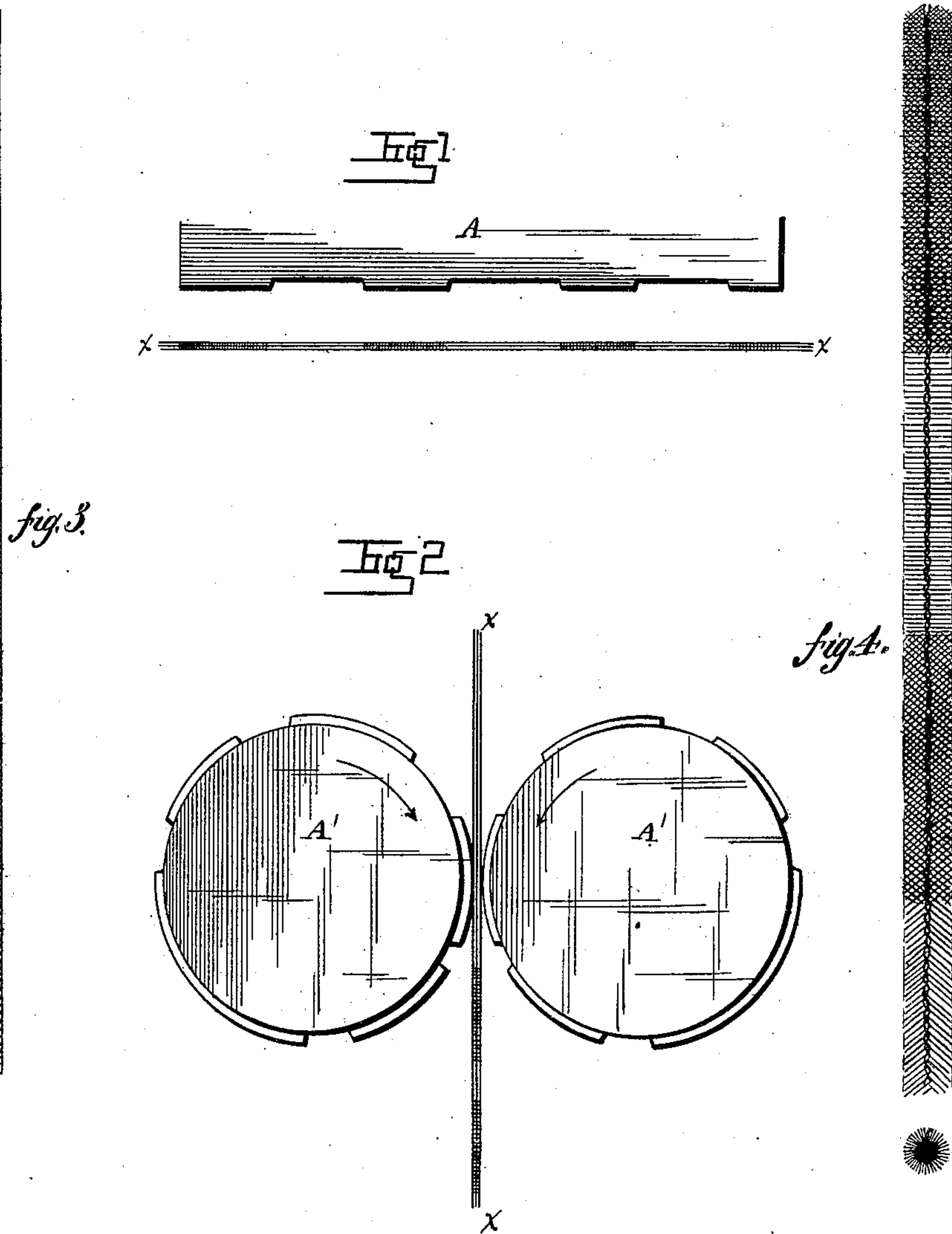
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W. E. & A. C. OEHRLE.

SPUN CHENILLE AND THE ART OF MANUFACTURING THE SAME.

No. 332,938.

Patented Dec. 22, 1885.



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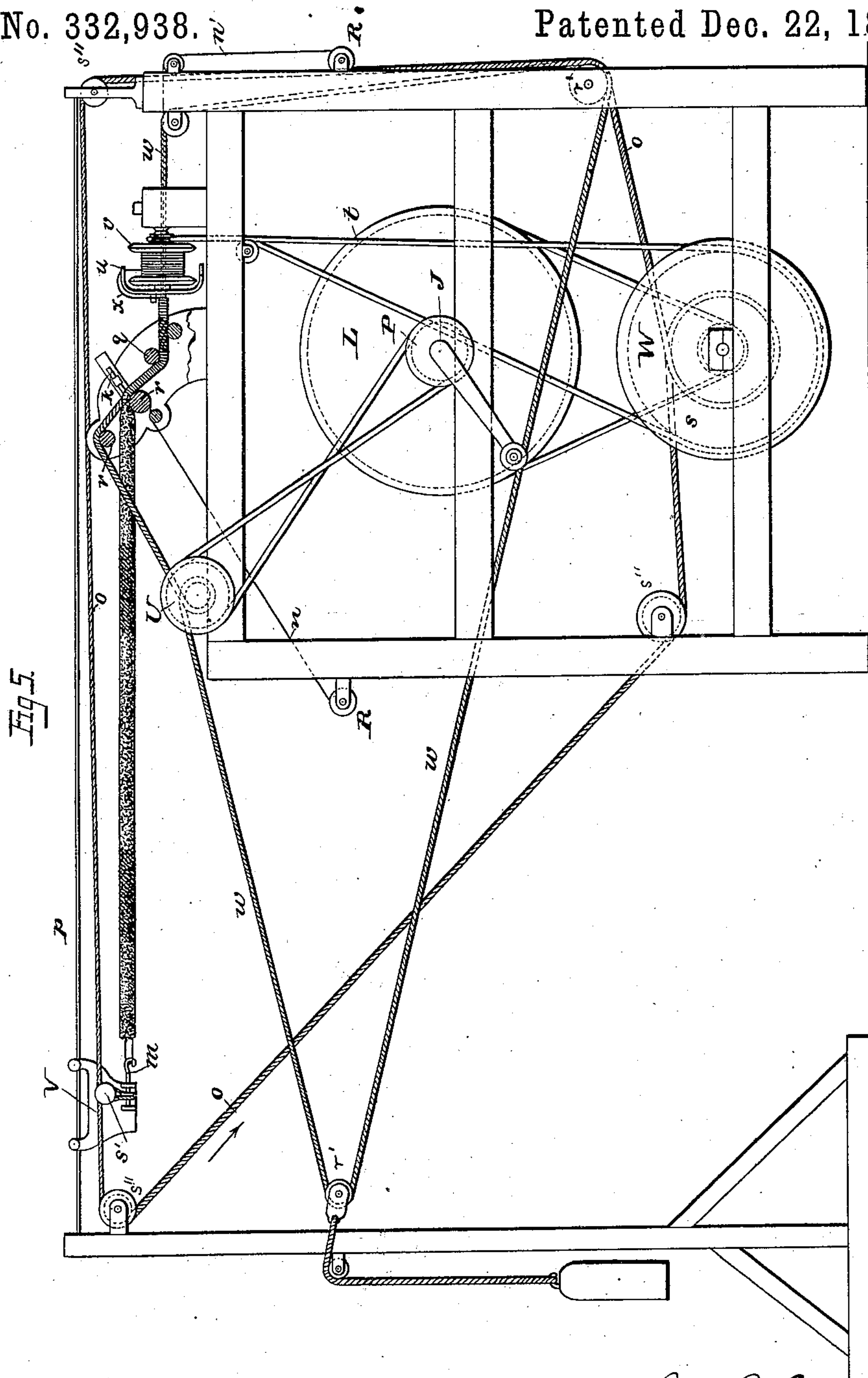
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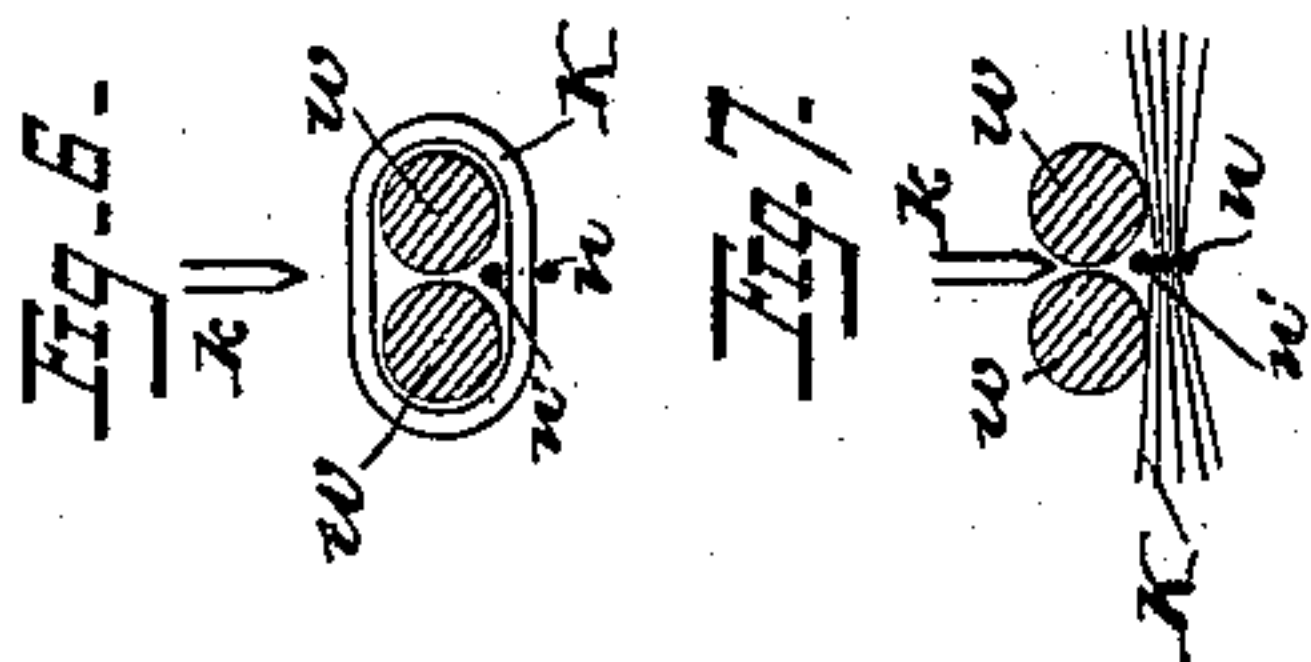
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UNITED STATES PATENT OFFICE.

WILLIAM EDWARD OEHRLE AND ALBERT C. OEHRLE, OF PHILADELPHIA,
PENNSYLVANIA, ASSIGNORS OF ONE-HALF TO HARTLEY A. CABLES, OF
SAME PLACE.

SPUN CHENILLE AND THE ART OF MANUFACTURING THE SAME.

SPECIFICATION forming part of Letters Patent No. 332,938, dated December 22, 1885.

Application filed November 8, 1883. Serial No. 111,218. (No sp cimens.)

To all whom it may concern:

Be it known that we, WILLIAM E. OEHRLE
and ALBERT C. OEHRLE, residents of the city
and county of Philadelphia, and State of Penn-
sylvania, have invented certain new and useful
Improvements in Spun Chenille and the Art
of Manufacturing the Same, of which the fol-
lowing is a specification.

Our invention relates to the manufacture
of spun chenille; and it consists in improve-
ments therein whereby we are enabled to
make the same of different colors having
sharply defined lines of separation.

Round or spun or twisted chenille has been
made from yarns or threads of a single color,
and, where multiple colors are required, from
yarns dyed of different shades of the same
color by immersing the different parts of the
yarns in the dye for a shorter or longer time,
so that those parts immersed the longer time
will take up more of the dye-stuff, and conse-
quently appear as a darker shade than those
immersed only a short time. These yarns are
then spun into chenille, but in the product
the lines of demarkation are not clearly de-
fined, one color blending into the other.

We overcome these objections by our in-
vention, which consists in manufacturing che-
nille by printing the weft or body yarns be-
fore connecting them to the chain, the remain-
ing process of manufacture being the same as
when threads each of a single color are used.

In the drawings, Figure 1 is a view illus-
trating the mode of printing the threads with
a flat block. Fig. 2 is a view illustrating a
mode of printing with cylinders. Fig. 3 illus-
trates a thread after being printed. Fig. 4
illustrates the chenille complete made from
the said printed threads. Fig. 5 is an eleva-
tion in part in section of a chenille-machine.
Figs. 6 and 7 are enlarged cross-sections illus-
trating the ordinary manufacture of the che-
nille.

In the ordinary mode of making spun che-
nille the weft-thread is wound around a form
of metal, wire, cord, or rope, of the proper
size and shape, across binding-threads, which
are twisted together, with the weft or body
threads between, holding the latter in their
place, and at the same time insuring a cylin-

dricul form to the article. In Figs. 5 to 7 we
have illustrated this mode of manufacture.

The operating parts of the machine are sup-
ported by a frame-work, and consist of two
parallel traveling cords, *w w*, guide-pulleys
for directing said cords through the tubular
support of a bobbin, *v*, and a revolving arm,
u, having an eye, through which passes the
silk thread *x* from the bobbin, so that as the
arm revolves the thread is wound round the
two cords *w w*, as shown in Fig. 6. The rota-
tion is imparted to the arm by means of a
driving-pulley, *W*, and cord *t*. The cords *w*
w pass under a guide-roller, *q*, and over guide-
rollers *r*, and round guide-pulleys *r'*, and
round a driving-pulley, *U*. The warp-threads
n n' are carried by bobbins *R R*, the warp-
thread *n'* passing over a guide-pulley parallel
to the cords *w w*, between and below the same,
under roller *q*, and over the lower guide-roller
r to a spindle, *m*, on a carrier, *V*, sliding on a
rod, *p*, and the warp-thread *n* passing from
below round the lower guide-roller *r* also to
the spindle. An endless cord, *o*, passes round
a driving-pulley, *s*, round guide-pulleys *s'*,
and round a drum, *s'*, on the carrier *V*, and a
band passes round the drum and round a pul-
ley on the spindle *m*. As the cord *o* moves
it carries the carrier *V* with it as fast as the
feeding of the threads *n n'* will permit; but as
the cord *o* travels faster than the threads are
fed it rotates the drum *s'*, and thereby revolves
the spindle *m*. Above the roller *r* is arranged
a sharp-bladed knife, *k*, the edge of which ex-
tends between the cords *w w*.

J is the main driving-shaft, carrying pulleys
P L, round which bands pass to the pulley *U*
and to a small pulley on the shaft carrying the
pulley *W*. As the cords *w w* are carried
through and from the bobbin *v* the silk thread
is wrapped round the same by the rotation of
the arm *u*, as shown in Fig. 6, the lap of
thread inclosing the warp *n'*. As the lapped
cords pass over the lower roller *r* the warp-
thread *n* is laid below the winding-thread, as
shown in Fig. 6, and as the cords pass below
the knife *k* the lapped threads are severed be-
tween the cords and spread laterally, as shown
in Fig. 7, and the cords *w* are then lifted from
the warps over the upper roller *r*, while the

warps are drawn forward by the carriage V and are twisted by the rotation of the spindle *m*, thus forming the chenille.

To insure a product in which the different
5 colors are sharply separated, we stretch or otherwise place the threads or yarns X, Fig. 1, so that they will be supported in proper positions to be operated upon by one or more printing-blocks, whereby each thread is
10 printed at the desired points of the desired colors, thereby producing a thread in which the different colors are separated by distinct lines without any merging of the adjacent colors. These threads are then used in the
15 manufacture of the chenille in the same manner as those consisting of a single uniform color, said threads being employed as above described, or in any of the usual modes of manufacturing spun chenille, to produce a
20 round or twisted figured chenille in which the different colors are sharply defined at a cost but little if anything greater than where the chenille is manufactured of a single color.

We have shown in Fig. 1 a flat printing-
25 block as the means used for imparting the desired colors to the threads; but it will be apparent that the printing of the colors may

be effected by means of revolving cylinders, as in Fig. 2, or in any other suitable manner.

It will be apparent that by properly proportioning the different colors upon the threads
30 any desired pattern may be produced on the chenille.

We claim—

1. The improvement in the art of manufacturing spun chenille herein described, the
35 same consisting in first printing upon the weft or body threads or yarns the desired colors at the proper points and then connecting the said weft or body threads to the binding
40 threads or chain as in the usual process of manufacture, substantially as set forth.

2. As a new article of manufacture, spun chenille having weft or body threads or yarns with different colors printed thereon, sub-
45 stantially as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

WILLIAM EDWARD OEHRLE.

ALBERT C. OEHRLE.

Witnesses:

JOHN H. CAHILL,

HARRY M. WILLIAMS.