

(No Model.)

J. BAYNES.

METHOD OF PRODUCING ORNAMENTAL ARTICLES.

No. 434,907.

Patented Aug. 26, 1890.

Fig 1.

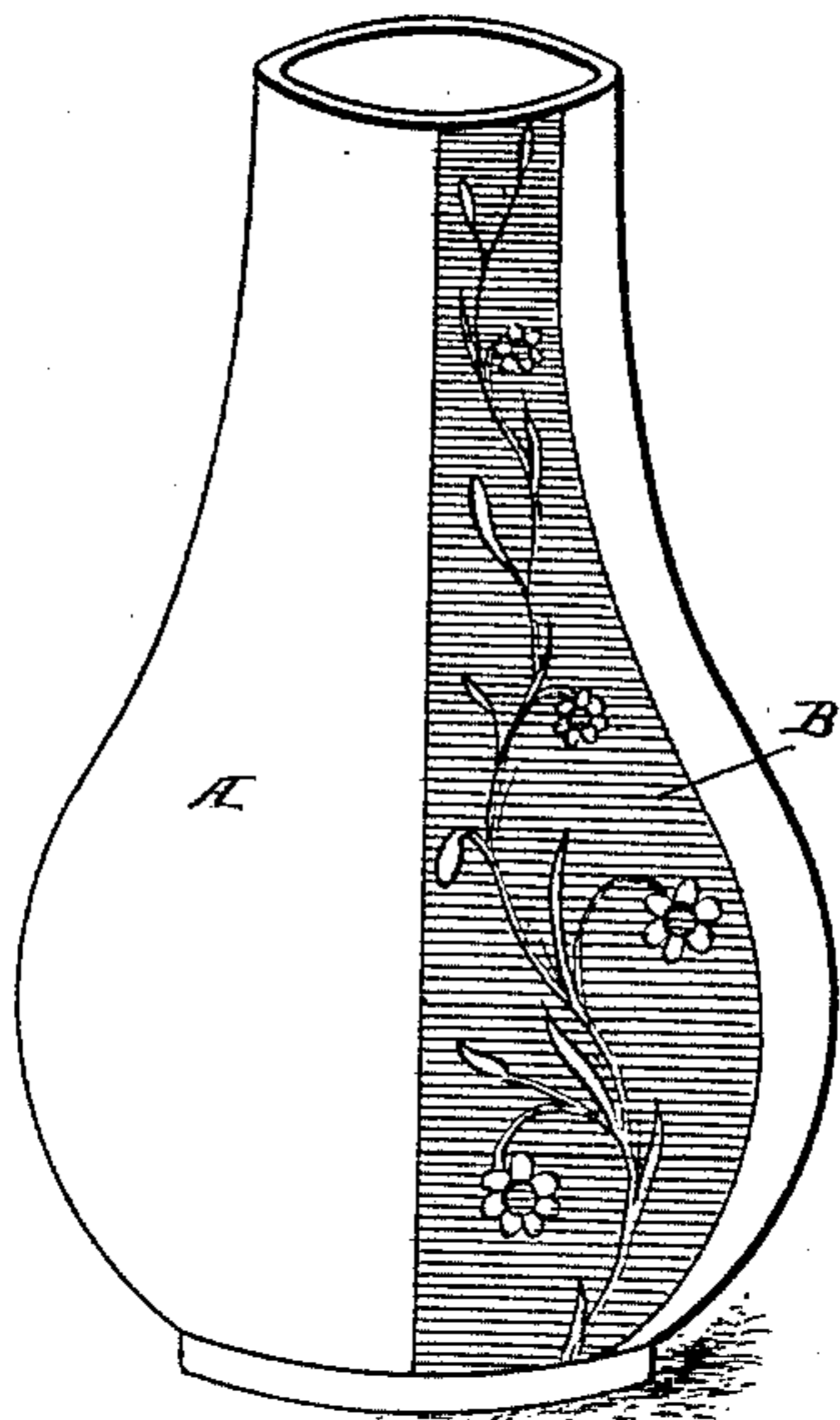


Fig 2.

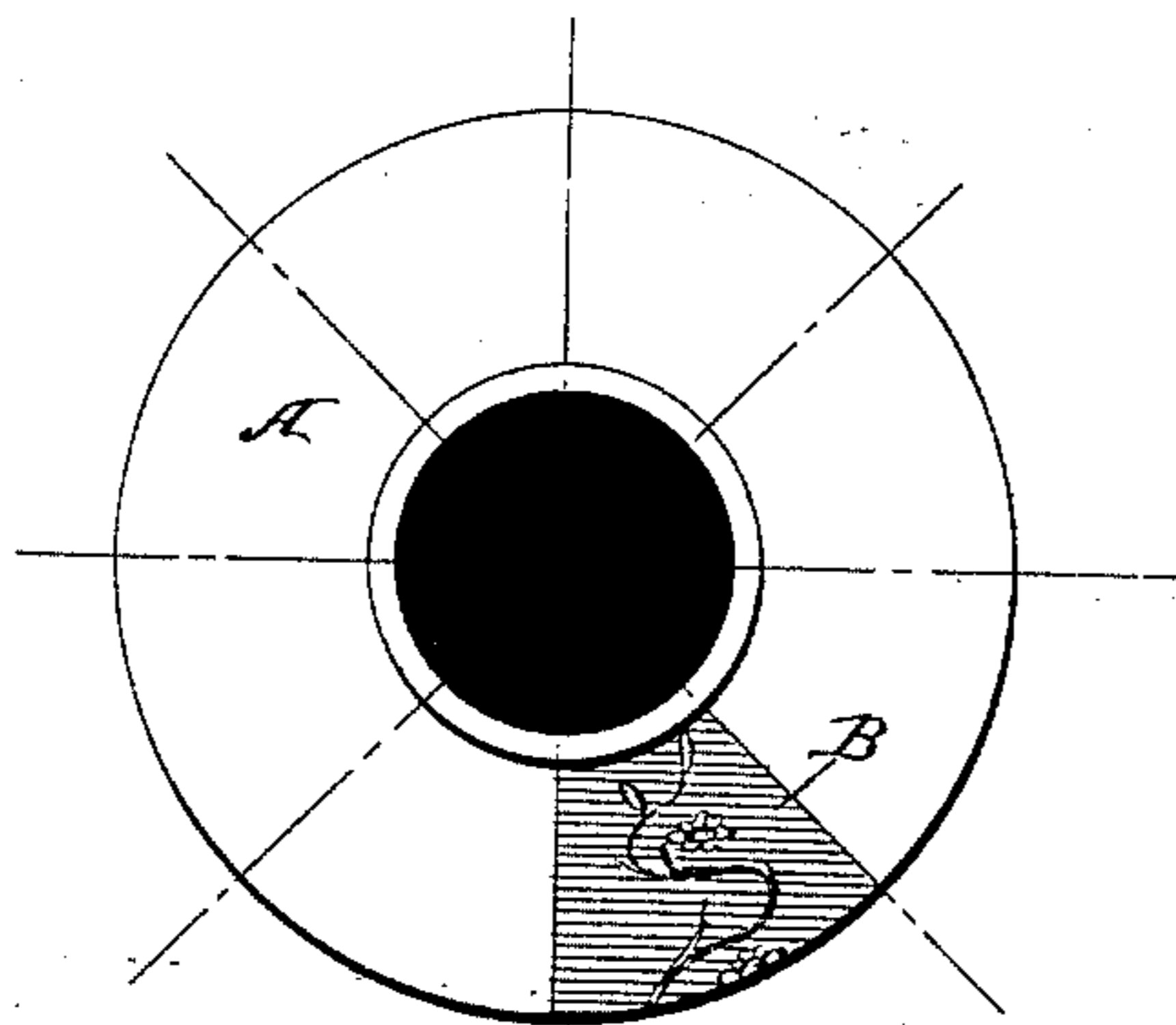
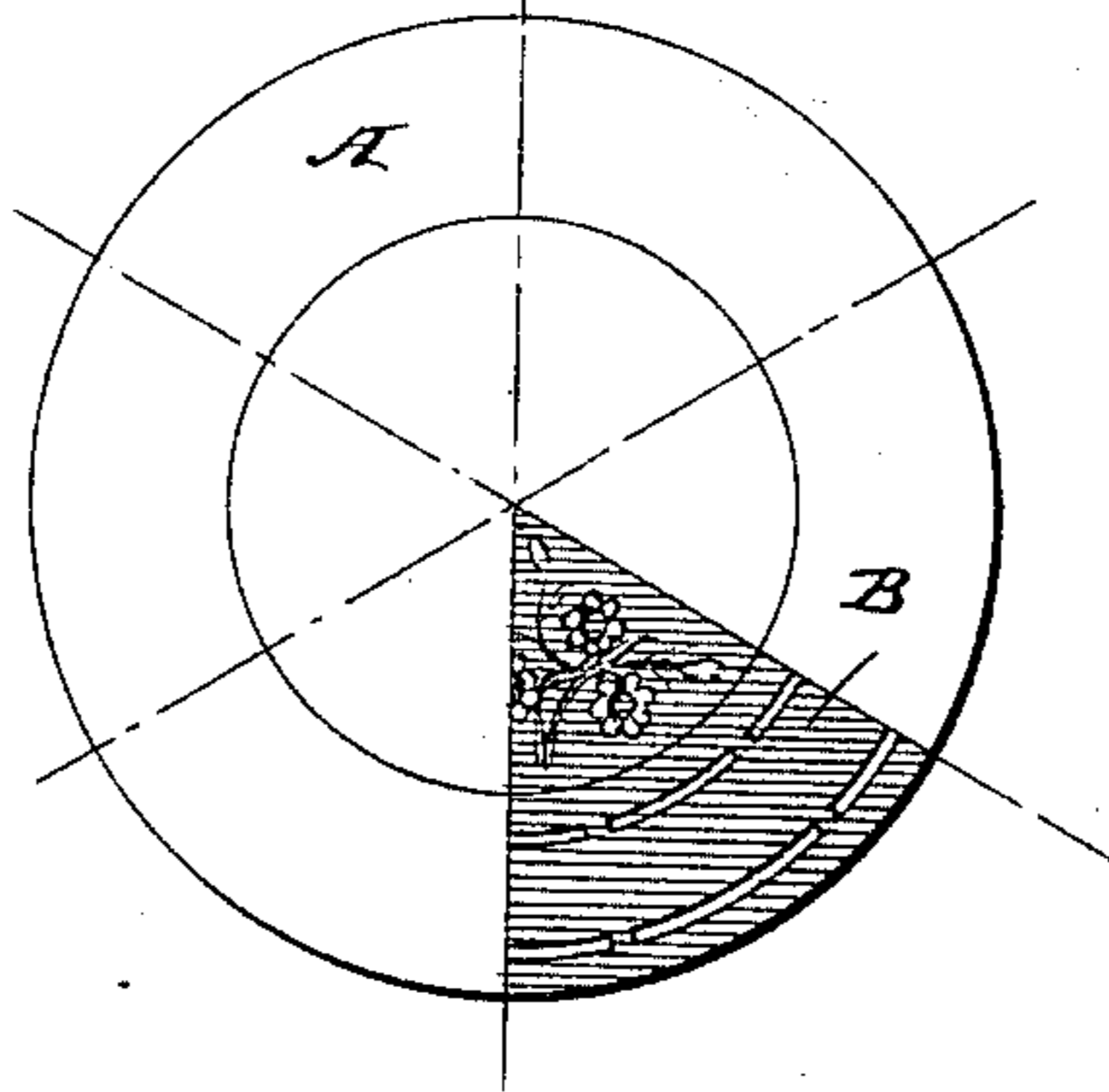


Fig 3.



Witnesses
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METHOD OF PRODUCING ORNAMENTAL ARTICLES.

SPECIFICATION forming part of Letters Patent No. 434,907, dated August 26, 1890.

Application filed January 4, 1887. Serial No. 223,379. (No model.)

To all whom it may concern:

Be it known that I, JOHN BAYNES, a sub-
ject of the Queen of Great Britain, residing
at Westchester, Westchester county, New
York, have invented certain new and useful
Improvements in the Method of Producing
Ornamental Articles, of which the following
is a specification.

My invention has for its object to facilitate
the ornamentation of articles of irregular or
unequal forms, upon the surfaces of which it
is desired to duplicate any pattern; and my
invention consists in coating such article with
a resist and removing portions of the latter
through the openings of a flexible stencil con-
forming in outline to a definite section of
the article to be ornamented, and adapted
to be successively applied in different posi-
tions and to fit closely against the irregular
surface while the portions exposed through
the stencil are being operated upon.

In the accompanying drawings, Figure 1 is
a perspective view, and Fig. 2 is a plan view,
illustrating a vase with an improved stencil
applied thereto in carrying out my improved
method of ornamentation. Fig. 3 is a plan
view showing the mode in which the stencil
is applied in ornamenting the surface of a
plaque.

In the manufacture or ornamentation of
articles of substantially circular cross-section
but of varying diameter, as spheres, globes,
vases of different shapes, goblets, drinking-
cups, &c., I have heretofore covered the face
of the article with an acid-resisting film, have
then applied a flexible stencil to cover the
parts not to be acted upon by the acid, and
have removed the resist by means of a brush
operating through the stencil, after which the
article is etched or subjected to a sand-blast,
or the exposed surface otherwise operated
upon to produce the desired effect. This
mode of operation involves the necessity, with
such irregular-shaped articles, of using a spe-
cial stencil for each article, corresponding in
shape to the form of such article, and there-
fore involves considerable expense in the man-
ufacture. To overcome these objections I
construct the stencil in such shape as to cor-
respond to a definite longitudinal section or

division of the surface of the article, so that
the stencil may be applied to operate upon
one division and then shifted to another and
then to another, and so on until the entire
surface has been operated upon. Thus for the
purpose of ornamenting a metallic vase A of
the form show in the drawings, I construct a
stencil-plate B, preferably of thin metal, as
heavy tin-foil, corresponding in form to a
definite division of the surface of the vase,
for instance, to the exact form of one-sixth or
one-eighth of said surface, so that by apply-
ing the said plate six or eight times in differ-
ent positions upon the vase it will be applied
to the complete surface.

The vase to be ornamented is covered with
a suitable resist, according to the character
of the agent to be employed for operating
upon the surface. If acid is to be used, I
employ an acid resist—as, for instance, a
coating of asphalt—and after the latter has
dried upon the surface I coat the surface of
the resist with a coating of soap or any suit-
able gum solution or other matter which will
insure a temporary adhesion of the flexible
metal stencil to the surface to which it is ap-
plied. The stencil-plate is cut in any suit-
able manner, according to the pattern to be
produced, and is applied to the soaped sur-
face and pressed down closely thereon, so as
to adhere thereto. A brush charged with
turpentine or other suitable solvent is then
used to wash away such part of the resist as
may be exposed through the openings in the
stencil. After one section of the article has
been operated upon in this way the stencil is
removed and placed in another position upon
the article, and the resist is then removed
from this section, and so on until the entire
surface has been operated upon. The vase
is then subjected to the acid or other agent
which operates upon the exposed surfaces,
after which the remaining portions of the re-
sist are removed to expose the surfaces which
have not been operated upon. As a stencil
made of rigid material would seldom fit close
at the edges of its openings to the surface of
the resist, and would, therefore, permit the
solvent to flow beneath the stencil, destroying
the pattern, I use a plate of pliable, non-el-

tic, flexible material—such as tin-foil—which can be pressed down tightly against the surface, notwithstanding it is irregular, so as to afford no space for the entrance of the solvent
 5 beneath the metal. I do not, however, limit myself to the use of tin or metal, as in some instances paper stencils may be made of paper coated with shellac or otherwise stiffened and water-proofed, or fine linen or other fabric properly coated may be employed. Neither
 10 is it always essential to use a solvent for removing the resist, as in some cases the material may be mechanically removed by the action of the brush or other tool.

15 I have referred to my improvement in connection with a vase the outside of which is to be ornamented; but it will be evident that it may be employed in connection with the ornamentation of articles of different forms
 20 and applied either to the external or internal surfaces, and also in the ornamentation of flat articles where a particular pattern has to be duplicated—as, for instance, in the ornamentation of plates where a single sectional
 25 stencil-plate B may be placed in different positions to complete the pattern, as illustrated in Fig. 3.

Without limiting myself to the precise details of construction and manipulation hereinbefore set forth, I claim—

1. The within-described improvement in

the production of ornamented articles, which consists in coating such articles with a resist and applying a pliable non-elastic stencil-plate coinciding in outline with a definite section of the article successively to different
 35 portions thereof until it has been applied to the whole surface, then removing the portions of the resist from the articles through the stencil-plate, and then acting on the exposed
 40 parts by a suitable agent, and, finally, removing the resist, substantially as set forth.

2. The within-described process of ornamenting articles of varying diameter, consisting in coating the article with a resist, applying thereto a pliable stencil corresponding in
 45 outline with a definite longitudinal section of the surface of the article, the width of the stencil at any point being equal to the division of the circumference of the article which
 50 it is to cover, and then removing the portion of the resist not covered by the stencil and ornamenting the article, substantially as described.

In testimony whereof I have signed my
 55 name to this specification in the presence of two subscribing witnesses.

JOHN BAYNES.

Witnesses:

C. J. NOURSE, Jr.,
 SPENCER C. DOTY.