

(No Model.)

2 Sheets—Sheet 1.

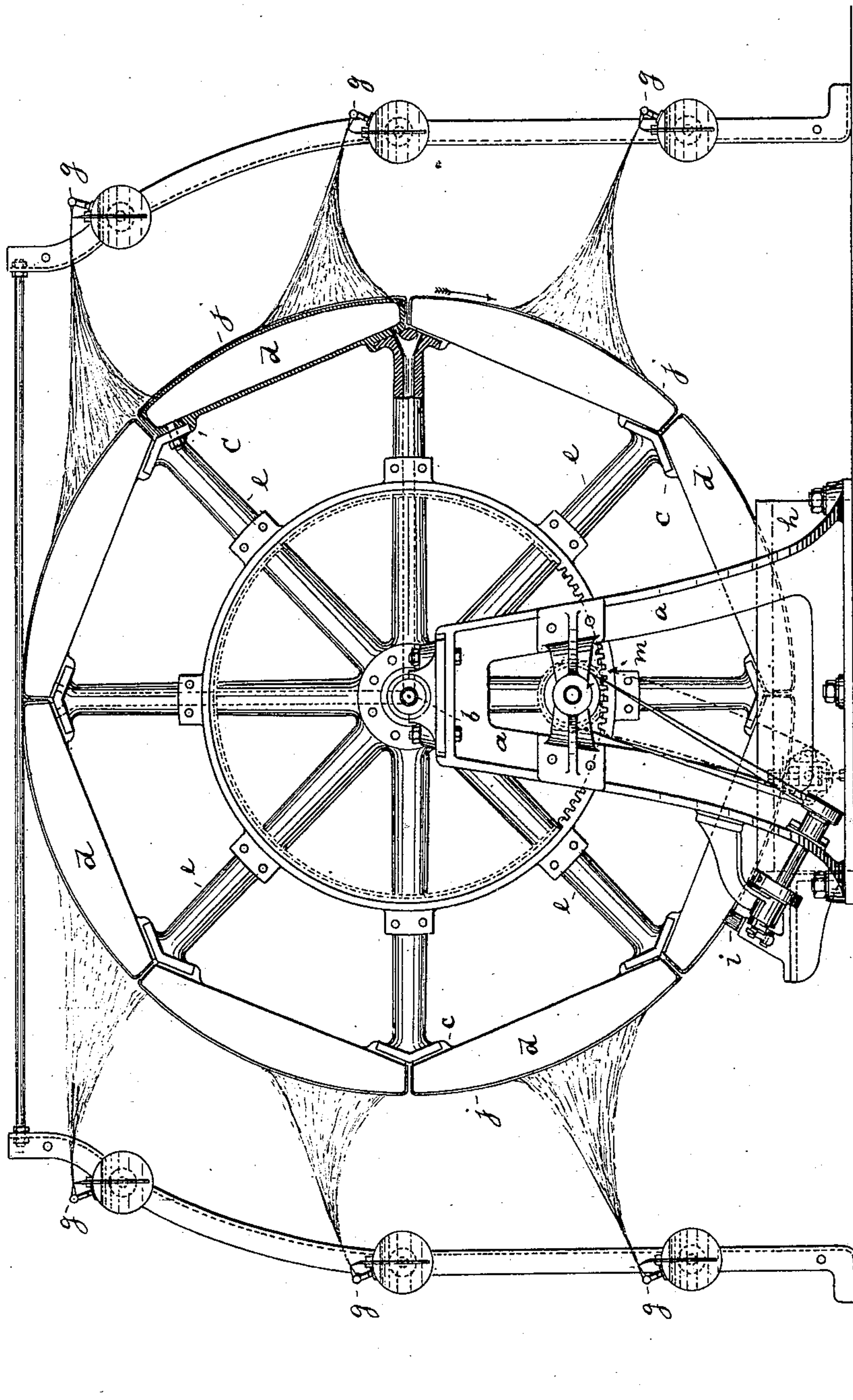
J. WEZEL.

MACHINE FOR MAKING ARTIFICIAL LITHOGRAPHIC STONES.

No. 332,852.

Patented Dec. 22, 1885.

Fig. 1



Witnesses:
M. E. McHugh
Robt Roy

Inventor:
Julius Wezel
by his attorney
Roeder & Bilsen

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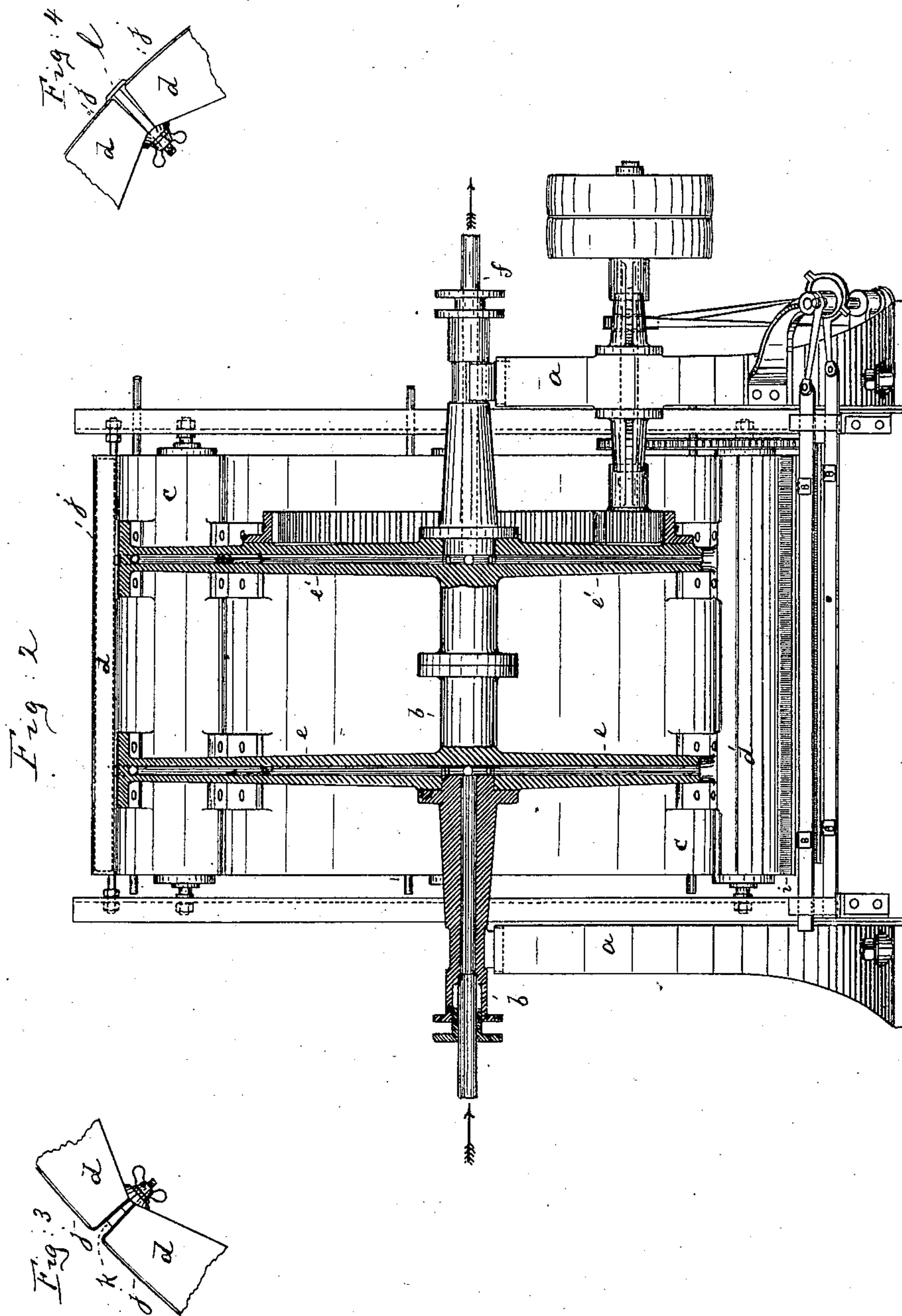
2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

JULIUS WEZEL, OF REUDNITZ, GERMANY.

MACHINE FOR MAKING ARTIFICIAL LITHOGRAPHIC STONES.

SPECIFICATION forming part of Letters Patent No. 332,852, dated December 22, 1885.

Application filed May 26, 1885. Serial No. 166,698. (No model.)

To all whom it may concern:

Be it known that I, JULIUS WEZEL, of the city of Reudnitz, Germany, have invented a new and Improved Machine for Making Artificial Lithographic Stones, of which the following specification is a full, clear, and exact description.

This invention relates to a machine for coating metal plates to produce artificial stone, and also to mechanism for roughing the plates preparatory to the application of the coating, so as to obtain a better hold for the latter. The metal plates are first secured to the outer surface of a drum composed of hollow plates or boxes, which may be heated, if desired. The drum is rotated to expose the plates to the action of a number of sprays, which roughen the sheets and deposit the coating in the form of a fine film. The plates are then made to pass through a water bath, and finally they are exposed to the action of brushes, which remove any superfluous deposit.

The invention consists in the various elements of improvement hereinafter more fully pointed out.

In the accompanying sheets of drawings, Figure 1 is a side elevation, partly in section, of my improved machine. Fig. 2 is a vertical central section of the same. Figs. 3 and 4 are detail views showing the mechanism for attaching the metal plates to the drum.

The letter *a* represents the uprights of a machine carrying the bearings for the hollow sectional axle *b f* of a drum, *c*, the circumference of which is composed of a number of hollow plates or boxes, *d*, secured to the ends of hollow radial arms *e e'*, projecting from axle *b f*. These arms are best shown in Fig. 2, from which it appears that each box *d* connects with one arm *e* and one arm *e'*. The boxes *d* may be heated internally by means of steam, hot air, or other heating device, which is introduced from a suitable source through the hollow axle *b* and arm *e*. After heating box *d* the steam escapes through arm *e'*, and is thence discharged by means of the exit *f*.

g g are a number of nozzles arranged circumferentially around drum *c*, and constructed to eject sprays of any desired compound upon the metal plates secured to the outer faces of boxes *d*. I prefer to have the first nozzles *g* eject a sand-blast, so as to roughen the metal

plates and better adapt them to receive the lithographic coating which is ejected by the remaining nozzles. If the sand-blast is employed, the boxes *d* should not be heated.

h is a trough for containing a water bath, arranged below drum *c*, so that the lowermost portion of said drum is immersed in said bath during the revolution of the drum.

i are a number of brushes or scrapers for removing any superfluous deposit.

The metal plates, *j*, to be coated are provided with turned-down edges, which fit against the edges of boxes *d*. Between every pair of adjoining edges there is then introduced a wedge, *k*, (see Fig. 3,) which may be tightened up by a thumb-nut.

In place of this construction, that shown in Fig. 4 may be employed. In this figure the plates *j* are not made with bent-over edges, but are secured in place by means of a headed screw-bolt, *l*, the head of which laps over the edges of two adjoining plates. A winged nut serves to draw this bolt up in proper manner.

m is the work-shaft for revolving the drum.

The operation of the machine has been already described. The plates *j* are first locked in place, and heat being admitted to the interior of boxes *d* the drum *c* is revolved to expose the plates successively to the action of the blasts, bath, and scrapers.

I claim as my invention—

1. The combination of drum *c*, having hollow boxes *d*, with nozzles *g*, substantially as specified.

2. The combination of drum *c*, having hollow axle *b f* and boxes *d*, with arms *e e'*, and with nozzles *g*, substantially as specified.

3. The combination of drum *c*, having boxes *d*, with trough *h*, scrapers *i*, and nozzles *g*, substantially as specified.

4. The combination of drum *c*, having boxes *d* and hollow axle *b f*, with arms *e e'*, trough *h*, scrapers *i*, and nozzles *g*, substantially as specified.

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

JULIUS WEZEL.

Witnesses:

EDMUND BACH,
HEINRICH LUSKE.