

orders from the smaller engraving establishments for certain kinds of lathe and roll work. The smaller engraver can send to the owners of lathes and rolls and have borders, etc., added to partly engraved plates.

A geometrical lathe is a very valuable machine, and only an expert is capable of operating it efficiently. The lathe is used only on rare occasions. In even the larger plants the lathe is at intervals idle for more than a year. The original work accomplished by the geometrical lathe for bank notes and certificates, for example, could not be duplicated by handwork.

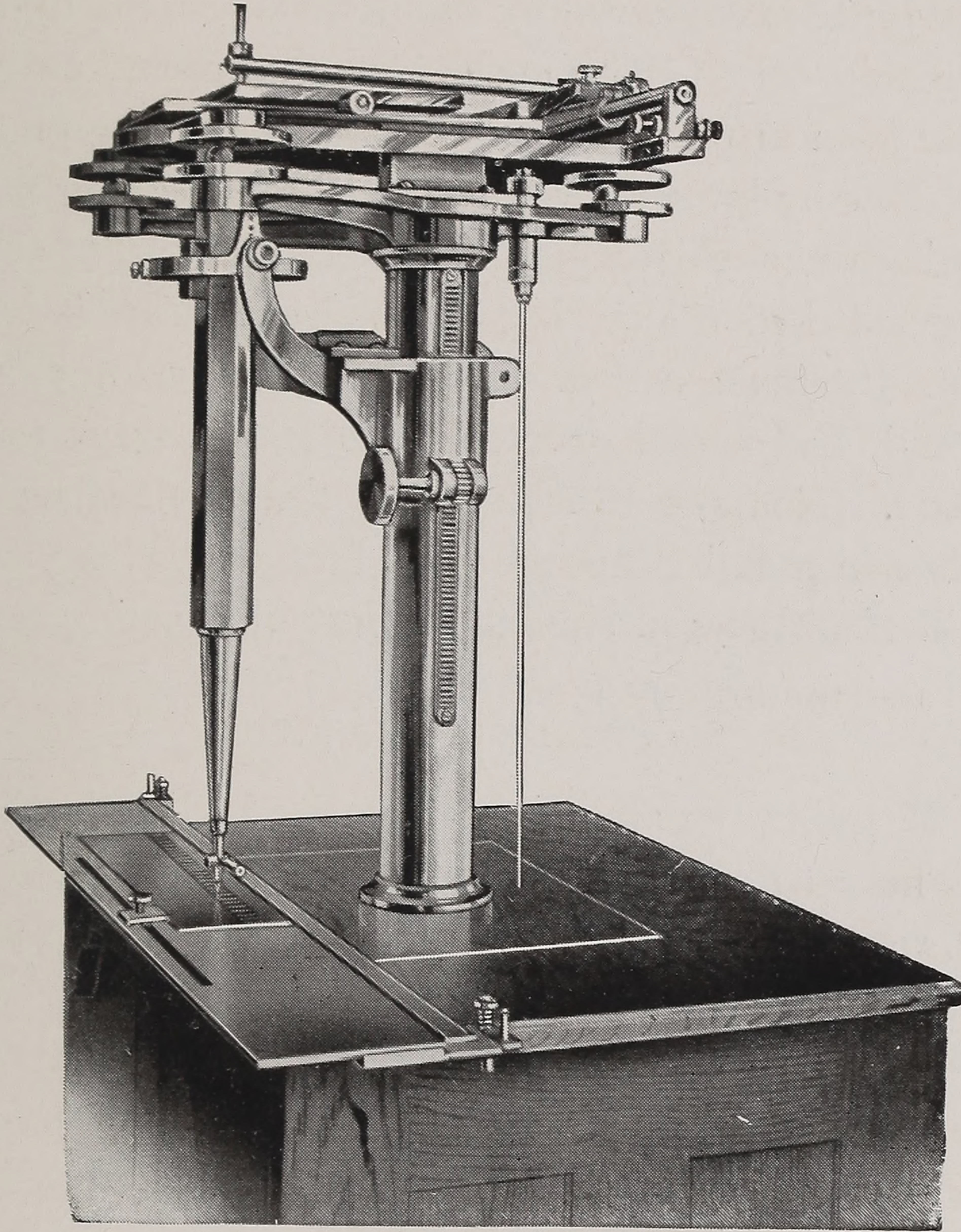
It should be mentioned that rolls containing designs in relief of ornaments, figures, tint backgrounds, etc., are also made for special purposes.

ENGRAVING MACHINES

There are several so-called engraving machines that are very efficient for outlining lettering and other ordinary work on steel and copper plates.

For lettering, the engraving machine works from a master plate which contains a complete alphabet of the lettering selected. The various characters of the alphabet have been stamped intaglio in the master plate. This plate is used as a pattern, instead of making a gelatin pattern. The characters on the master plate are large, and the engraving machine can be so

adjusted that the letters may be reduced to any smaller size desired when transferred to the steel or



An engraving machine

copper plate. An individual master plate is essential for each style of lettering.

After the engraving machine has outlined with a diamond point the pattern on the steel or copper plate, the plate is engraved by hand, or is treated and given the acid "bite" the same as though a vermilion ground had been applied. All of the fine engraving must still be done by hand; nevertheless, the engraving machine will save considerable time in any plant where there is a great deal of lettering to do. It should be understood that the machine will outline large lettering as well as small. Expanded or condensed lettering can also be done. From one of the master plates lettering can be done in a full range of sizes. The engraving machine will also do work similar to that of a ruling machine.

STEEL-DIE ENGRAVING

Regular engraving on steel dies is done in the same manner as engraving on steel and copper plates. The engraving is deeper, however, as both printing and embossing are produced from steel dies.

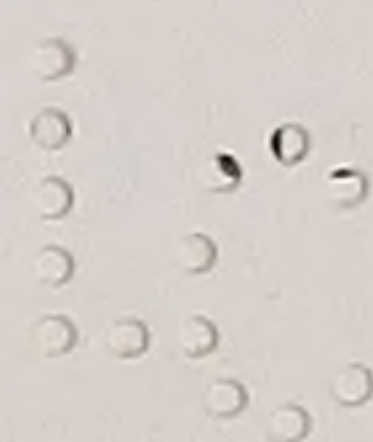
The designs are made on gelatin sheets, and are transferred to the face of the dies the same as for steel and copper plates. Certain work can be outlined on the dies by the engraving machine.

Figure dies—those containing embossed reproductions of faces and forms—are engraved with the aid of a special machine. The model for the face or figure

Plate Printing and Die Stamping

HOW TO OPERATE A DEPARTMENT
FOR COPPERPLATE AND STEEL-DIE
ENGRAVING AND PRINTING

By
Robert F. Salade



NEW YORK
OSWALD PUBLISHING COMPANY
1917