

Graphic Chart Shows Profit and Loss

A Simple Graphic Chart Which Tells Just What a Machine, a Department or a Plant Will Produce, the Loss or Profit it Will Show at Every Stage of Operation.

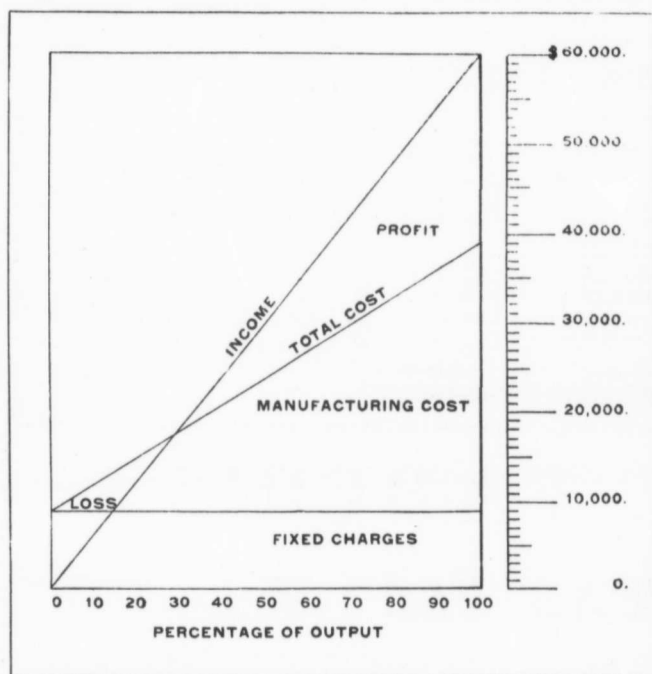
By JAMES A. WHITE, M.E., IN SYSTEM.

Whenever the maximum output can be estimated from the proposed operation of a business or any phase of it—machine, apparatus, or manufacturing plant—a graphic chart can be drawn up which will show the possibilities for profit in an enterprise before operation.

Many times it is important to have at least approximate figures of what profits may be expected from an enterprise. In such

the sum of such expenses as light, heat, power, taxes, insurance, rent, salaries and wages for non-productive labor, depreciation on plant, interest on loans, and similar items. From the point so found draw a line across the diagram parallel with the base, the assumption being, as is approximately the fact, that the fixed charges remain constant regardless of the output.

A line representing the total cost, or sum



The graphic chart used to show the exact percentage of loss or profit at every stage of output in a factory or business concern; by it the figures for maximum output may be computed.

cases in manufacturing the graphic chart can be used as illustrated in this article. The process requires few lines and little effort in computation of figures. It is designed for quick and accurate use as the example shown proves. At a glance the results desired may be obtained with ease. In fact the diagram is self explanatory. It is designed to show the percentage of loss or profit at every stage of output—especially the point where output reaches a profitable basis.

HOW THE LINES ARE DRAWN TO SHOW TOTAL COSTS.

Two scales are laid out. A base line representing percentages of output and a vertical scale divided for dollars. Lay out on the scale of dollars the point which represents the amount of the fixed charges, which in a manufacturing plant would be

of the fixed charges plus the manufacturing cost, will be a diagonal as the manufacturing cost, which includes all material and labor used in the finished product, varies in direct proportion with the output. This line should be drawn from a point on the maximum output vertical, representing the sum of the fixed charges plus the estimated manufacturing cost of the maximum output, to the junction of vertical of no output and line of fixed charges.

HOW THE PROFITS OF AN ENTERPRISE MAY BE COMPUTED.

A third line representing the income will also be a diagonal as the income will vary in direct proportion to the output. This line should be drawn from a point on the maximum output vertical, representing the income to be so derived, to the base line at point of no output.

The diagram will then show graphically the amount of profit or loss to be derived from the proposed enterprise, with varying percentages of output up to the maximum; the percentage of possible output that must be secured to prevent loss; and the extent of the profits to be realized through increasing the output from the point where profits begin. In fact, all information required may be computed by this graphic plan.

In the diagram shown it is assumed that the fixed charges are \$9,000; that the manufacturing cost is \$30,000 and the income \$60,000 for the maximum output. The income line crosses the total cost line at the vertical, representing thirty per cent. of the output, showing at a glance that a loss will ensue if less than thirty per cent. of the maximum output is turned out. At fifty per cent. of the maximum output the diagram shows a profit of about \$6,200 with a total cost of about \$23,800, or about twenty-six per cent. profit.

WHAT MAXIMUM OUTPUT MEANS IN PROFITS TO MANUFACTURER.

With the maximum output, however, the profit shows \$21,000 with a total cost of \$39,000, or a profit of nearly fifty-four per cent. This shows very strikingly the great financial advantage of securing maximum output from any apparatus or manufacturing plant in all lines of business.

Many applications of this form of diagram will suggest themselves. It is applicable to the output of mills, furnaces, and factories as well as to individual apparatus or machines; to power plants, to office expenses, to sales forces, as well as to manufacturing.

The simplicity of the chart makes it especially practicable to any business where calculating of this cost is desirable. The fact that it is not complicated will make it appeal to all classes of business men, for it will enable them easily to compute output figures. And the importance of thus analyzing production capacity is fully apparent.

Ink Eradicator Pencil

An effective ink eradicator in convenient form for removing blots and stains from paper and clothing is being manufactured by the Collins Ink Eradicator Co., Hoboken, N.J., and sold in Canada by Morton, Phillips & Co., Montreal.

The acid element of the eradicator is held in a narrow necked bottle about four inches long, shaped somewhat like a pencil, and about twice the diameter of an ordinary lead pencil. From the bottle the acid may be applied much as one would write with a stylograph pen. The alkali element is contained in a chemical blotter wrapped around the bottle or "pencil." The liquid is simply applied to the ink stain, which is then blotted by rolling the pencil on it, and the trick is done. A rubber cap prevents evaporation when not in use.

Romeo Letter Copier

The Romeo, no water, no carbons, letter copier have placed the control of their product for Canada with the Wood, Green Sales Co., Toronto. More information in regard to this extremely interesting machine will follow in our next number.

They are to be on exhibition at the Business Show.