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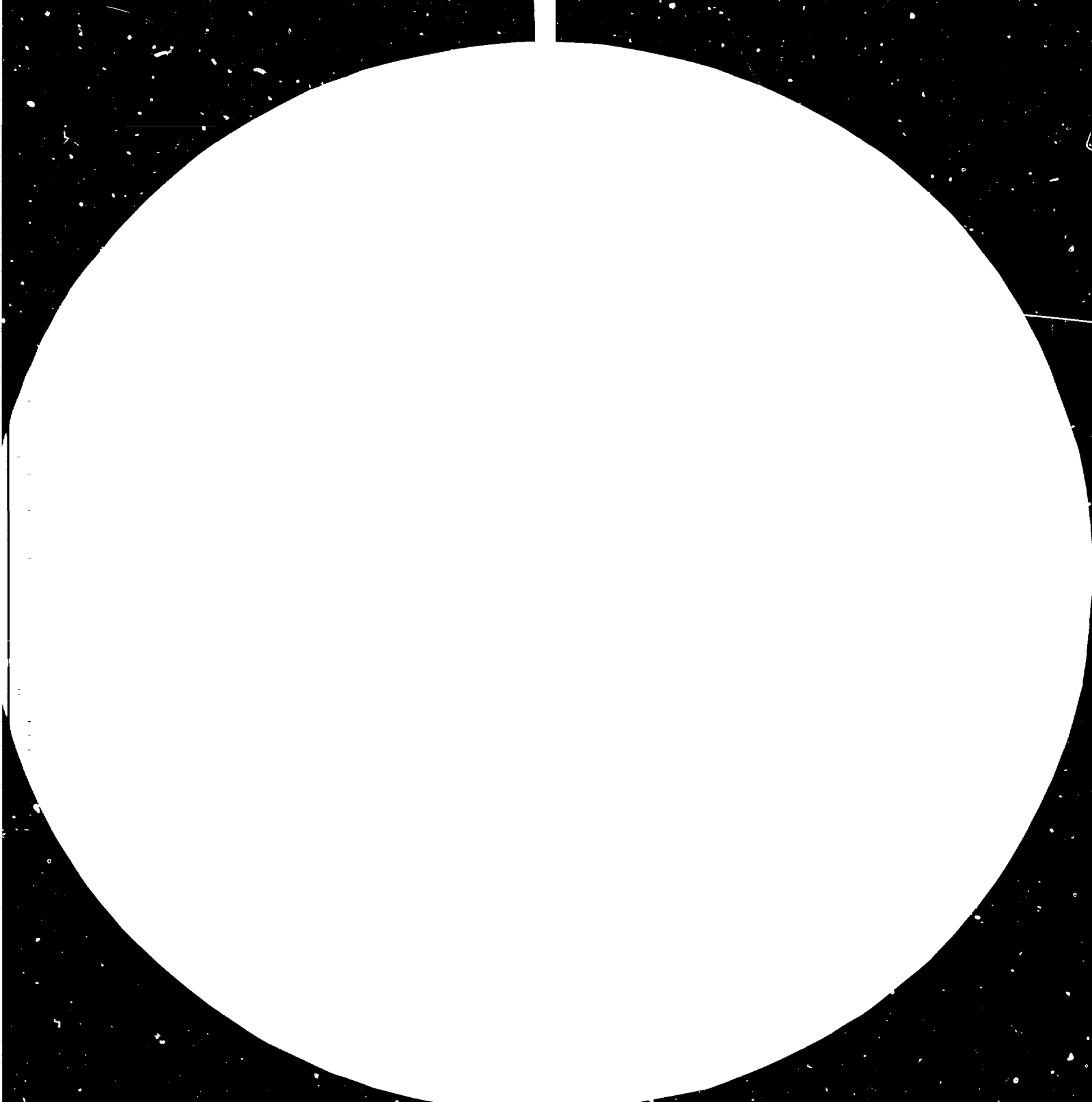
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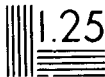
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Resolution Test Chart (NBS 1963-A) (ANSI Z39.18-1968)

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A MOTHER PULP MILL TO STIMULATE RURAL ECONOMY *

by

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The government in a developing country like India is keen on developing the rural economy by increasing the purchasing power of the common man. One of the effective approaches next to agriculture is rural industrialization which calls for imaginative development of rural entrepreneurs.

The persistent efforts by the government for rural industrialization have not achieved the result to the desired extent so far. The question of what industry to start, who would provide the know-how, supply the right plant and machinery and lend market support for the products are the important factors one has to consider, besides observing licensing procedures and formalities, before starting a new industry. The high mortality rate amongst small scale industries was attributed to some of the factors.

The constraints can be overcome by a rational approach. The success story of Anand Dairy Project in India (Gujarat state) is a shining example which is a pointer for new directions. At Anand and its neighbouring rural areas, people rear cattle. In processes where more technology is involved such as milk processing, drying, cheese and chocolate making, nationwide marketing is done by a central organization.

In a Mother Pulp Mill, high technology and cumbersome processes such as pulping, bleaching, collection of raw materials and marketing are undertaken by the mother organisation, providing all infrastructure facilities to the feeder units built around it. The Mother Pulp mill produces 50 TPD of pulp out of most commonly available agricultural waste (such as paddy/wheat straw, bagasse, reeds, banana stems, stalks of cotton, etc). Fifty percent of this production is utilized in the manufacture of unbleached liner board/corrugating medium to make the project more economically viable. The rest of the pulp is bleached and supplied for the manufacture of writing paper to about twenty-five small units, each manufacturing paper of 1 TPD capacity situated in different villages within a radius of 50 kms. The combined effluent from the bleaching plant and paper mill is given primary treatment to remove suspended solids. This is done by sedimentation. After this, the sludge could be mixed with screw rejects, waste paper and other shredded agricultural wastes to produce solid building boards.

These tiny units which produce 1 TPD paper, employ a simplified cylinder mould machine which can be either operated by power or manually (hand/pedal) depending upon the requirements. A simple machine-drying arrangement is provided using either a Yankee cylinder or by other simple method depending upon the thickness of paper produced.

The collection, baling, and transportation of raw materials, pulp and finished products are all undertaken by the newly created entrepreneurs. In all, the project will develop around fifty rural entrepreneurs (mostly educated unemployed graduates) providing them, under one roof, the necessary know-how, supply of plant and machinery training, organizational and administrative support, effective practise of concurrent payment scheme for the lending institutions, management of finance and quality of production, etc. The entrepreneurs, though backed by the central marketing support, are also given free hand to market on their own to meet the demands of the region.

A comparatively simple technology appropriate to the needs of the developing country is employed for the production of pulp with the following criteria:

- a) Economy of capital cost.
- b) Simplicity in operation and maintenance.
- c) Labour intensiveness of operation.
- d) Linkage with agricultural operation and industries.
- e) Profitability of use of materials for which there is no other economic use.
- f) Adaptability to the substance range required.
- g) Suitability in terms of decentralization and regional dispersal of the paper industry.
- h) Ease of installation of additional paper machines sequentially with cash flow and operating cost benefit as well as in response to expansion of demand for paper.

Hence, it is evident that the new concept:

- 1) Dynamises the national development ensuring agricultural prosperity
- 2) Catalytically influences the population to develop more Mother Pulp Mills (one for each district in the Indian country).

Also, such projects influence the development of more dairy projects.

3) Creates rural entrepreneurs by providing self-employment opportunities to the educated and unemployed people of the region.

4) Prevents the migration of people to urban areas.

5) Activates and upgrades the transport system of the region.

6) Creates more employment opportunities.

