



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



TOGETHER
for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

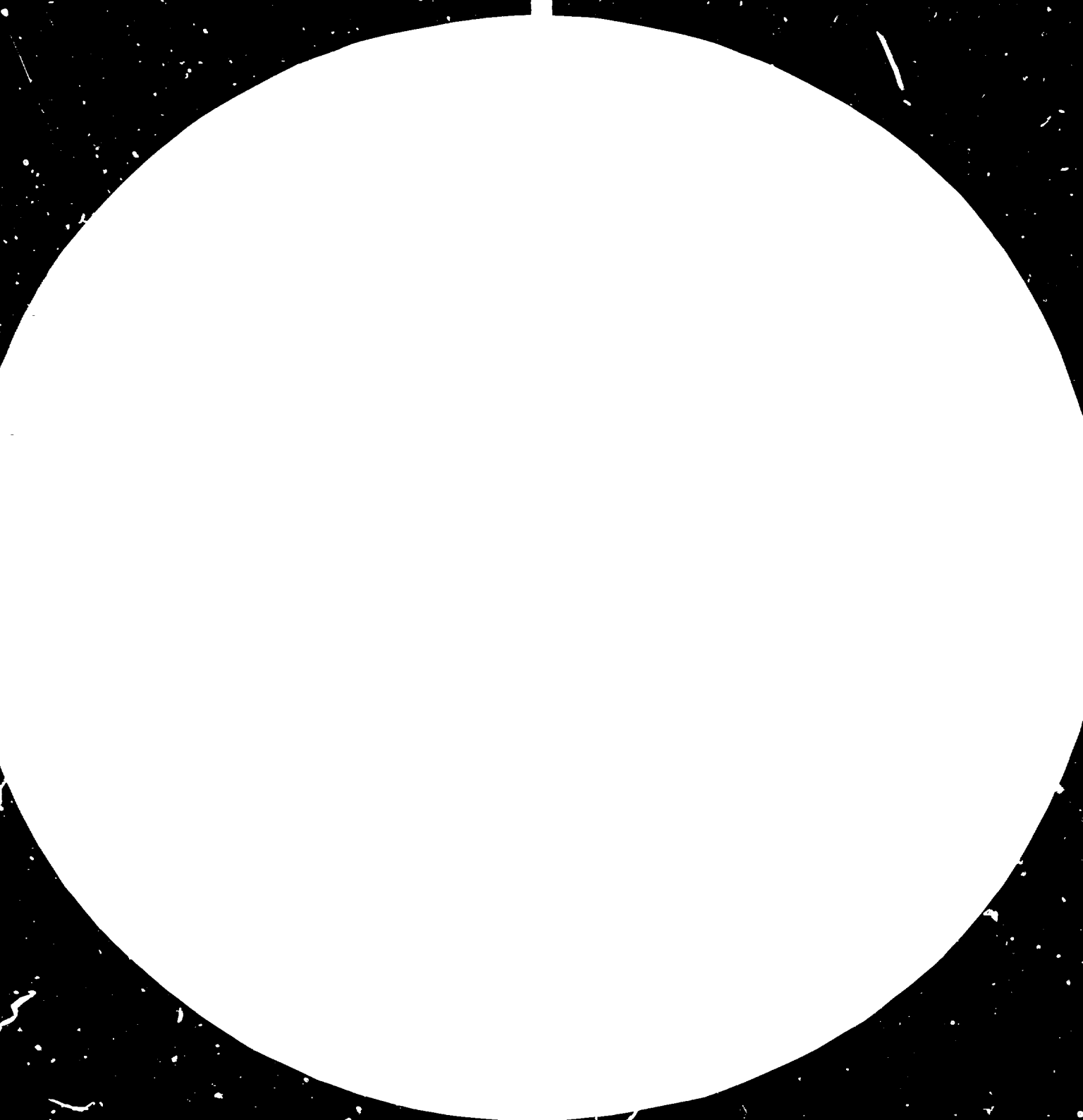
FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org





1.8

2.0

2.2

2.5

2.8

MIKROGRAFIJA I FOTODIAGNOSTIKA, 1982, 15: 113-117

RESOLUCIJSKA MOĆ OPTIČKIH FOTODIAGNOSTIČKIH APARATA



10296



United Nations Industrial Development Organization

Distr.
LIMITED

ID/WG.323/16
31 December 1980

ENGLISH

Seminar on Furniture and Joinery Industries
Lahti, Finland, 3 - 24 August 1980

THE FOREST INDUSTRIES CORPORATION
Kenema, Sierra Leone *

by

H.P. Songo**

~~001202~~

001202

* The views expressed in this paper are those of the author and do not necessarily reflect the views of the secretariat of UNIDO. This document has been reproduced without formal editing.

** Assistant Superintendent, Sierra Leone Forest Industries Corporation.

The Forest Industries Corporation was established at Kenema in 1948, for the manufacture of sawn timber, of furniture and joinery, purposely for Government departments, commercial institutions and individual customers.

The factory is situated at Kenema, the headquarters of the Eastern province of Sierra Leone. The factory is divided into two departments: timber department and furniture department. Each department, however, is headed by a production manager. Both of these managers are headed by the general manager who controls the entire administration, production and welfare of the factory.

The furniture department is sub-divided into ten different sections according to the nature of the work performed.

1. Production office:

This office is the branch of the office of the production manager (furniture). It is responsible for the preparation and distribution of "workshop order" and requisitioning of timber requirements for the workshops concerned. It can also do costing of all special items manufactured by the workshops.

2. Kiln drying section:

The quality, life and texture of furniture depends on how timber is being seasoned in this section. Since it handles the raw materials from the mill, the timber is being stacked on stickers on the top of a wheel carrier before it is pushed into the kiln. The kiln is then regulated as required to have the timber dried out until the moisture content is suitable for the manufacture of furniture of all classes.

Air seasoning can also be done in this section, but it takes a longer period than kiln seasoning. The mass production of furniture however, cannot run effectively without kiln dried timber.

More improvement is needed to this sub-division of furniture department in order to cope with the customers' orders of furniture. After drying timber in this section, it is the responsibility of the section to distribute the dried timber to the workshops concerned. This can be done by means of tallying.

3. Four cutter section:

This section was formerly called "the mould mill section", because of its production of mouldings suitable for furniture as well as joinery. It is the responsibility of this section to plane component parts of furniture in large quantities before being carried to the workshop for further operation.

In addition to the preparation of component parts, it can also manufacture cover strips, wall panellings and crates. This section also needs improved modern woodworking machines.

4. Wood Workshop:

The purpose of this section is to manufacture all types of household furniture, as well as that for restaurants, pubs and garden furniture. It is the biggest section among all other sub-divisions and having more woodworking machines than others; though not modernized. It should be an advantage therefore if this part of the department is equipped with modern woodworking machines and tools in order to cope with the numerous demands for furniture such as chairs, beds, desks, and tables. Some designs cannot be done without the aid of a jig for proper and safe handling while operating the machines. The section is also divided into two productive bodies: the machine shop and the assembly shop. The machine shop prepares the component parts of all types of furniture manufactured, has them sanded and a strict quality control adhered before being passed on to the assembly shop for side sub and final assemblies. This section is not the beginning of quality control, it starts right from the kiln drying section and continues through the different sections until the object is ready for marketing, the process is called "operation flow".

5. Joinery workshop:

This section deals with both joinery and cabinet making. It makes doors of all sizes, windows and prefabricated sections are also manufactured here and carried to the site where a whole house is erected. These houses are built mainly for use by Government departments.

In addition to the responsibilities mentioned above, it also manufactures both hard and soft furniture and also kitchen cabinets.

Here again this section is sub-divided into smaller sections:

(a) Machine shop:

This shop prepares and dimensions component parts for any object produced by the workshop.

(b) Assembly shop:

This shop assembles all components parts of an object required.

(c) Door sections:

This small section deals with the manufacture of doors and windows.

(d) Crate division:

This also manufactures Coca Cola crates, Seven Up and also Nail cases; fish boxes are also produced in this section.

6. Upholstery section:

This is another very important section in a furniture producing industry. It deals mainly with soft furniture, cushions and interior decorations. Here differences are distinguished between hard and soft furniture. However, this section works in conjunction with sections nos. 4 and 5. All lounge chairs, beds, dining chairs are upholstered in this section without delay and defect. Modern factory improvement should be introduced in this section so far as machines and tools now at hand are concerned.

7. Sanding section:

This section, though smaller in size and common is very important to the cabinet maker and the industry as a whole. All furniture produced by both the wood workshop and the joinery shops should go through this section for sanding to a satisfactory smooth surface before lacquer is applied to it. The main purpose of this section is to be wholly and solely responsible for checking any irregularity in the manufactured goods and to sand them thoroughly to an approved smooth surface. After that the goods are then taken to another section called "polishing section".

8. Polishing section:

This is the second to the last stage of furniture production. After the object has been sanded in the section above, it is then brought to this section for final smoothing and polishing. The purpose of polishing an object is

- (a) to prevent the object from insect attack, and
- (b) to change its original colour so that it will look more attractive and pleasant. Painting and applying lacquer to furniture are the two major processes involved in this section.

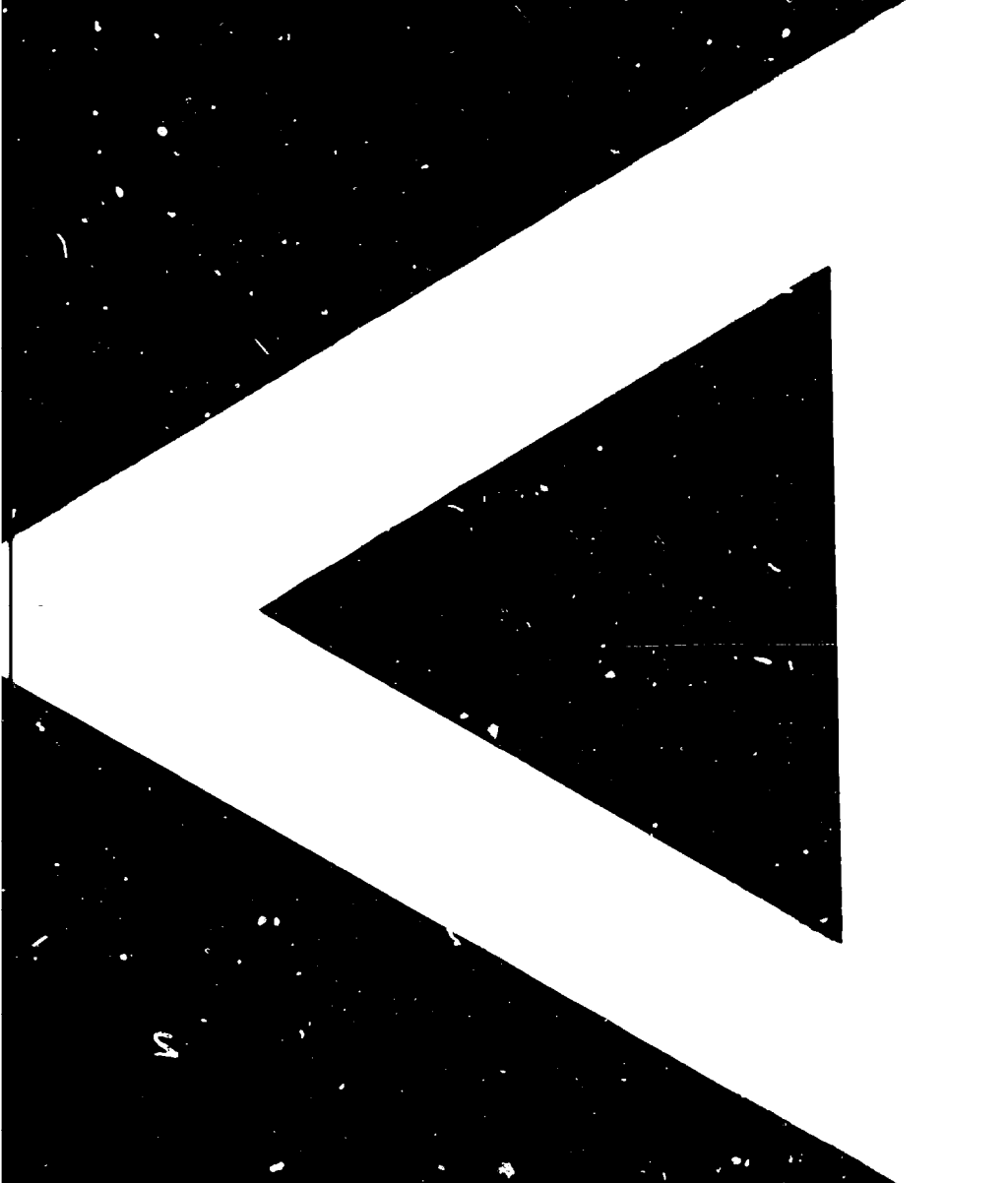
9. Final fitting:

This section however, does the last operation on finished goods. The fixing of fittings, such as ball catcher, locks, handles, knobs, mirrors, etc. are some of the work done in this section before a finished item is ready for the market. That is why this section is called "final fitting".

10. Furniture sales section:

This section is responsible for the sales and despatch of all furniture manufactured to government departments, commercial institutions and individual customers.

Customers put in orders through this section for the information of the production manager. The latter, after receiving this information, sends out work orders to the various sections concerned.



4