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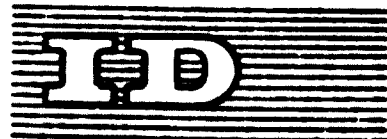
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THE WOODWORKING INDUSTRIES IN THE UNITED ARAB REPUBLIC ✓

Country paper

by

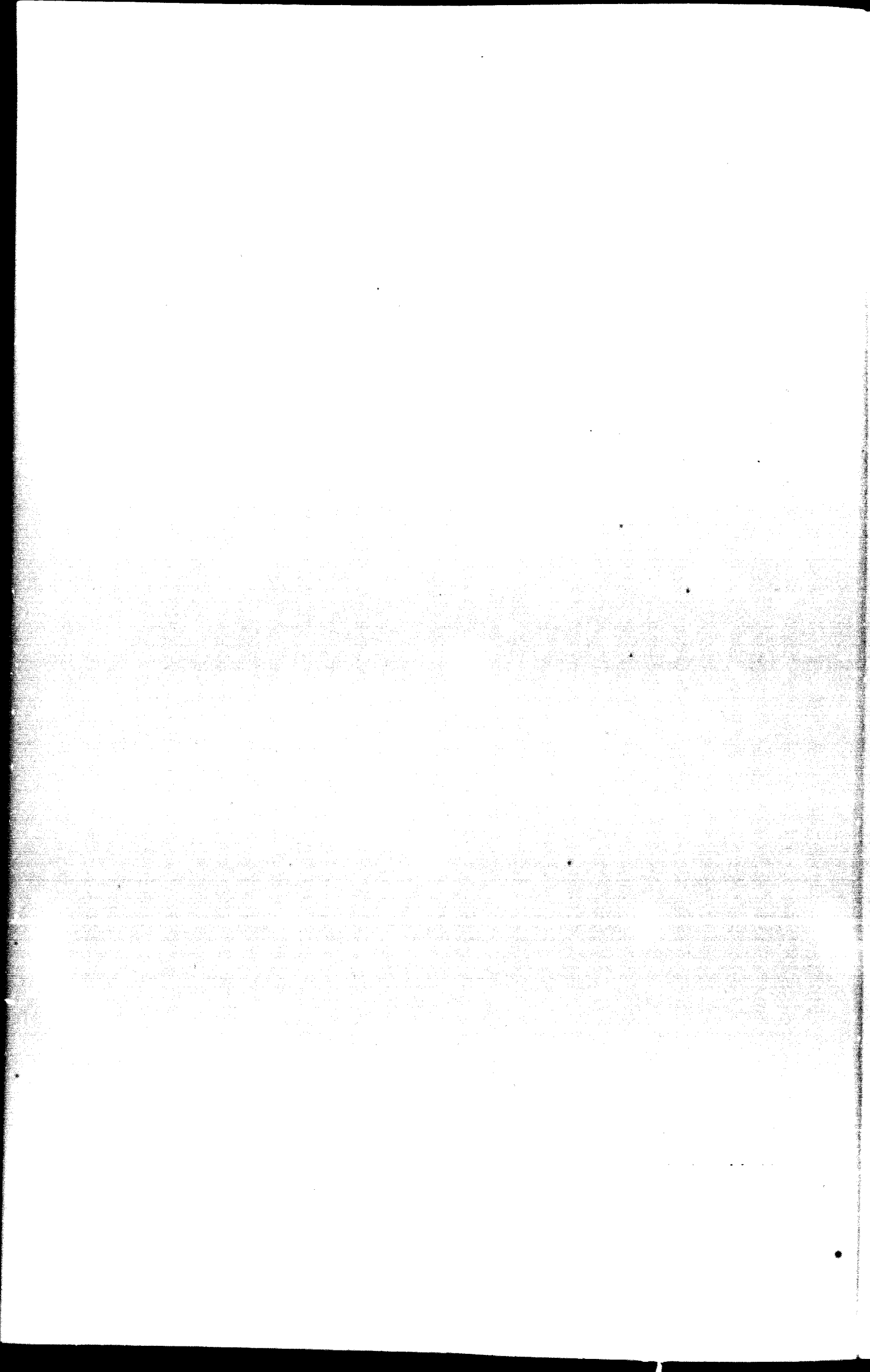
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In the UAR, the woodworking industries including furniture production is considered one of the most important industries which play a very big role in the economic life of the country, especially since 1968 when the UAR aimed at encouraging the export of wooden furniture to other countries.

Particle board, plywood, and hardboard industries have been introduced recently to our country. Production of these products is the basis of furniture manufacture and it is consumed locally, in addition to the fact that the UAR imports big quantities of plywood, estimated to be about double the local production.

This study will deal with the production capacity of each kind of these industries, quantities exported recently, quantities expected to be exported in the near future and means of increasing local production capacity to cope with the export requirements.

This study includes also the particle board and standard furniture projects, presented by the Egyptian Woodworking Company and approved to be executed in the Third Five Year Plan of the Ministry of Industry 1970 - 1975.

The enclosed tables show the production of the various woodworking industries in 1967, 1968 and 1969 compared to the production of 1952.

Production of woodworking industries in
1967, 1968 and 1969 compared to 1952

Industries	Unit	1952		1967		1968		1969	
		Quantity	Value L.E.(1,000)	Quantity	Value L.E.(1,000)	Quantity	Value L.E.(1,000)	Quantity	Value L.E.(1,000)
<u>Manufacture of wood</u>									
1. Blockboard and Plywood	M3	900	327.8	2786	5212	609.1	5666	977	
2. Particle board and Hardboard	Ton	---	646.3	11416	13682	726.5	21478	1,512	
<u>Manufacture of Woodworking Products</u>									
1. Architectural wood, door and window	Ton	120000	15,400	140000	143850	15,823.5	139205	15,312	
2. Wooden furniture	Room	90000	10,010	77000	87748	11,980.9	---	14,541	
3. Wooden chairs	Qty	200000	625.7	347428	408600	735	450400	834	
4. Parquets	M2	7500	67.9	42007	51534	76	62375	97	
5. Requirements of spinning and weaving industry	Value	50	135.9	---	---	185.5	---	148	
6. Cork	Value	---	52.3	---	---	107	---	136	
7. Other wood industries	Ton	---	2,255	20500	24100	2530.5	---	4,327	
Total value (L.E. 1,000)			29,520.9			32,782.1		37,544	

U.S.A. Wood Imports 1966 - 1969

Customs Item No. (B.T.N.)	Article	1966		1967		1968		1969	
		Quantity/ Ton	Value L.E.million	Quantity/ Ton	Value L.E.million	Quantity/ Ton	Value L.E.million	Quantity/ Ton	Value L.E.m.
44/3	Logs	17575	0.595	14929	0.444	11134	0.350	20271	0.35
44/4	Squared Wood	46841	1.913	26746	1.055	391	0.013	2548	0.104
44/5	Sawn Lumber	200690	11.860	222999	9.201	53114	2.178	68175	2.760
Total		325106	14.36	264574	10.700	64639	2.541	90994	3.499

CAPACITY OF THE EXISTING PRODUCTION UNITS IN THE U.A.R.

There are various units producing natural and artificial wood and wood products classified hereunder according to the type of industry:

I. Furniture Industry

There are 16,000 small production units existing in the different regions in the UAR in which less than nine workers are occupied. The production of these small units covers more or less the requirements of the local market of the classic furniture.

There are also 120 small carpentry shops in each of which 120 workers are occupied to produce modern and classic furniture for export purposes.

In addition to the above mentioned, there are five factories each employing nearly 250 workers producing for local market and export.

All these units, workshops and factories depend largely on the manual methods of working and have some small traditional woodworking machines which cannot cope with the standard of finishing production to compete with other countries in export either in quality, quantity or cost of production.

The following schedule shows production of furniture in 1966, 1967, 1968 and 1969:

<u>Year</u>	<u>Unit</u>	<u>Quantity</u>	<u>Value (L.E. million)</u>
1966	Rooms	39500	11,635
1967	Rooms	77000	10,010
1968	Rooms	87748	11,988
1969	Rooms	100000	14,541

II. Manufactured Chairs

There is a small number of units in the private sector producing 300 chairs per day covering the requirements of the local market. The production of these chairs is not considered standard.

The Egyptian Woodworking Company is the only public sector company manufacturing the chairs as standard production, as it has a line production unit producing 400 chairs per day, i.e. 120,000 per year. This production covers the requirements of the local market besides export.

The following table shows the production of chairs in 1967, 1968 and 1969:

<u>Year</u>	<u>Quantity</u>	<u>Value (L.E. thousand)</u>
1967	347428	625.7
1968	408600	735
1969	450400	834

III. Plywood and Blockboard Industry

There are two public sector companies producing plywood in the U.A.R. One of them is specialized in plywood and blockboard production and that is the Egyptian Woodworking Company as it produces 9000 M3 of plywood and 4000 M3 of blockboard per year. The other one is the Nile Match Company and it produces about 2000 M3 of plywood per year as subsidiary production besides the main line of match production. Thus, the total production of plywood in the UAR amounts to about 11000 M3 per year. The actual consumption attains about 35000 M3 per year, hence 24000 M3 are imported yearly. Major steps have been taken to increase the production of plywood at the Egyptian Woodworking Company by installing the new line of plywood and that will produce another 4000 M3 of plywood.

The following schedule shows the production of plywood in 1967, 1968, 1969 and 1970:

<u>Year</u>	<u>Unit</u>	<u>Quantity</u>	<u>Value (L.E. thousand)</u>
1967	M3	2788	327.8
1968	M3	5212	609.1
1969	M	5616	877
1970	M3	11000	1,540

IV. Veneer and Sawn Lumber Industry

The vast majority of the sawwood needs are imported. The UAR depends mainly on logs imported from West Africa, France and other countries with large forest resources. The Helwan factory of the Egyptian Woodworking Company is the only factory in the UAR producing sawn lumber and veneer. The kinds of sawn lumber and veneers produced are: Mahogany, Oak, Walnut, Sycamore, Macore and other kinds.

The two tables below show the production of veneer and sawn lumber in 1967, 1968, 1969, and 1970:

A. Veneer Production

<u>Year</u>	<u>Unit</u>	<u>Quantity</u>	<u>Value (L.E. thousand)</u>
1967/1968	M2	425697	105.0
1968/1969	M2	757949	203.2
1969/1970	M2	982923	283.5
1970/1971	M2	1009106	911.8

B. Sawn Lumber Production

<u>Year</u>	<u>Unit</u>	<u>Quantity</u>	<u>Value (L.E. thousand)</u>
1967/1968	M3	495	29.6
1968/1969	M3	764	41.7
1969/1970	M3	2563	167.6
1970/1971	M3	2876	191.5

V. Panels from agricultural residues

This industry includes particle board and hardboard.

A. Particle board

There are three factories producing particle board from agricultural waste as follows:

1. Particle board plant at Kom-Ombo, (particle board is made of bagasse), and this plant produces three layers particle board with a capacity of 12,500 tons per year.
2. Particle board plant at Tanta, (particle board is made of flax shives), and this plant produces one layer particle board with a capacity of 900 tons per year.
3. Particle board plant at Mansoura, (particle board is made of flax shives and branches of local wood), and this plant produces one layer particle board with a capacity of 10,500 tons per year.

B. Hardboard

There is one plant producing hardboard at Faraskour with the capacity of 2000 M3 per year.

Plans for increasing the production capacity of particle board and hardboard

It is intended to increase the capacity of the particle board plant at Mansoura by introducing new equipment so as to reach 12,000 tons per year.

As for hardboard, a study is being made to double the production capacity to cope with the increasing demands of the local market.

The table below gives the production of particle board and hardboard in 1967, 1968 and 1969:

<u>Year</u>	<u>Unit</u>	<u>Quantity</u>	<u>Value (L.E. thousand)</u>
1967	Tons	11416	646.3
1968	Tons	13682	726.5
1969	Tons	21478	1,312.0

Future Possibilities of Export

The U.A.R. has not been able to execute her obligations detailed in the export protocol of furniture production, signed with U.S.S.R. The figures hereunder illustrate this:

<u>Year</u>	<u>Value of contracts</u> (£ 1000)	<u>Amounts executed</u> (£ 1000)
1968	2.247	1.300
1969	2.114	1.833
1970	3.299	2.762

In order to consolidate the Financial Balance, we have to concentrate on the mechanisation of production and this shows the importance of expediting the execution of the standard Furniture Project.

Increasing the mechanisation of production, after executing this project, will lead to increasing the volume of exports so as to reach from 6 million to 7 million pound sterling in 1975 as shown in the following table which includes also the exported quantities since 1965:

<u>Year</u>	<u>Value of the total quantities exported</u>	
1965	L.E.	86,373
1966	L.E.	60,389
1967	L.E.	70,632
1968	L.E.	203,329
1969	L.E.	1,489,403
1970	L.E.	3,189,404
<u>Forecast</u>		
1971	L.E.	3,500,000
1972	L.E.	4,000,000
1973	L.E.	5,000,000
1974	L.E.	6,000,000
1975	L.E.	7,000,000

How to Increase the Production
Capacity to Cope with the Export
Demands

The furniture manufacture in U. L. R. is considered, until now, a craft, as machines represent only 25% of the manufacturing processes and the remaining processes are done manually. Consequently the furniture products are traditional and cannot be considered as standard production.

Taking the above mentioned fact into consideration and bearing in mind the quality of furniture exhibited in foreign markets and produced under the most developed techniques, the idea of introducing the mechanised production arises due to the fact that there must be a noticeable increase in the production capacity accompanied with improving the quality to compete with foreign markets production.

This requires the introduction of scientific methods based on minute planning.

These objectives are reflected in the new project of the production of standard furniture project presented by the Egyptian Woodworking Company.

Information about Exported
Wooden Products - Kinds and
Destination

Exportation depends mainly on wooden products and not materials which are not locally available, but some few quantities of particle-board, the value of which was £ 3,595 have been exported during 1970. (This can be considered an exception).

The following schedule shows value of wooden furniture exported during 1970

<u>Destination</u>	<u>V a l u e</u>	
	<u>Sterling</u>	<u>Dollars</u>
Arab countries	99,036	75,876
Eastern countries	99,353	- -
U.S.S.R.	2,898,420	- -
Western countries	18,204	1,700
African countries	35,191	2,800

The New Project of Standard
Wooden Furniture

Production Capacity:

- 2500 sets of: bedrooms, sitting rooms and dining rooms.

5000 individual pieces in 300 working days, one shift of seven hours could be doubled by working two shifts.

The above mentioned production, valued at L 500,000 annually, will be produced for export.

Equipment:

Up to date machines such as hydraulic, double copying machines, presses combined sawing and boring, profiling and veneer splicers and multi-purpose machines, should be used in the new project to minimize cost of production.

Traditional machines will be used for about 10% of the production process, concentrated mainly in the department of cutting to size solid timber. The total value of the required machines is about L 500,000.

Assembly:

Assembly will be made manually and by presses for final assembly.

Finishing:

Finishing process will need up to date methods, systems and equipment for using Nitrocellulose and Polyester.

Production requirements:

Lacquers : Polyester, nitrocellulose (England, Holland, West Germany & Austria).

Adhesives: Ureaformaldehyde P.V.A. Glutin (locally available and can be imported from England, Holland, West Germany and Austria).

Hardware requirements: Locks, manatic locks etc. (West Germany)

Raw Material required:

Blockboard, plywood, veneer, hardwoods, soft woods and particle board.

Project aim:

This project aims at the production of standard furniture mainly for export purposes and replacing the skill of furniture manufacture by a mass production industry. Besides, the project aims at achieving the highest quality of furniture produced to suit the international market.

Bedroom

Main raw material:

<u>Kind</u>	<u>Quantity/room</u>	<u>Origin</u>
Hardwood	0.25 M3	Romania
Veneer	30 M2	Locally available
Panels (blackboard or chipboard)	29.5 M2	Locally available, later on when the chipboard plant is executed.
Plywood	11 M2	Romania, Yugoslavia and U.S.S.R.
Soft wood	0.04 M3	U.S.S.R.

Auxiliary raw material:

Adhesives	5 kg	Locally available
Plastic hinges	15 pieces	Eastern Germany
Screw with plastic cover	12 "	
Locks	3 "	or
Screw knife	72 "	
Wardrobe tube	1 "	Hungary
Metal & plastic handle	16 "	Local
Plastic shelf support strips	12 "	Local
Bolts	4 "	Local

Dining Room

Main raw material:

<u>Kind</u>	<u>Quantity/room</u>	<u>Origin</u>
Hardwood	0.30 M3	Romania
Veneer	25 M2	Locally available
Panels (Block board or chip-board)	12 M2	Locally available when the chipboard plant will be executed
Plywood	5.4 M2	Romania, Yugoslavia and U.S.S.R.

Auxiliary raw material:

Foam plastic	2 m2, 5 cm thick	Lebanon, Italy and Cyprus
Adhesives	5 kg	Locally available
Hinges	10 pieces	Eastern Germany or Hungary
Locks	8 "	
Copper screw knife	36 "	
Metal & plastic handles	16 "	Local
Plastic shelf support strips	12 "	Local

Living Room

Main raw material

<u>Kind</u>	<u>Quantity/room</u>	<u>Origin</u>
Hardwood	0.20 m ³	Romania
Veneer	25 m ²	Local
Panels (block board or chip board)	15 m ²	Available locally when the chipboard plant is executed.
Plywood	5.4 m ²	Romania, Yugoslavia and U.S.S.R.
Soft wood	0.08 m ³	U.S.S.R.

Auxiliary raw material:

Foam plastic	4 m ² , 10 cm thick	Lebanon, Italy and Cyprus
Adhesives	4 kg	Local
Hinges	12 pieces) East Germany or Hungary
Screw	20 pieces	
Locks	2 "	
Screws	72	Local
Magnetic catch	6	East Germany or Hungary
Metal & plastic handle	10	Local
Plastic shelf support strips	10	Local

The New Project of Chipboard
Plant

The Egyptian Woodworking Company accomplished the technical & economical studies of the new projects and emphasised the necessity of executing the chipboard plant project to utilize the waste available at the company in her four factories: at Embaba, Helwan, Alexandria and Shoubra El Khayma. This waste is estimated to be about 6500 tons per year and it includes veneer, plywood and other kinds of wood waste. This project is included in the third five year plan 1970 - 1975 of the Ministry of Industry.

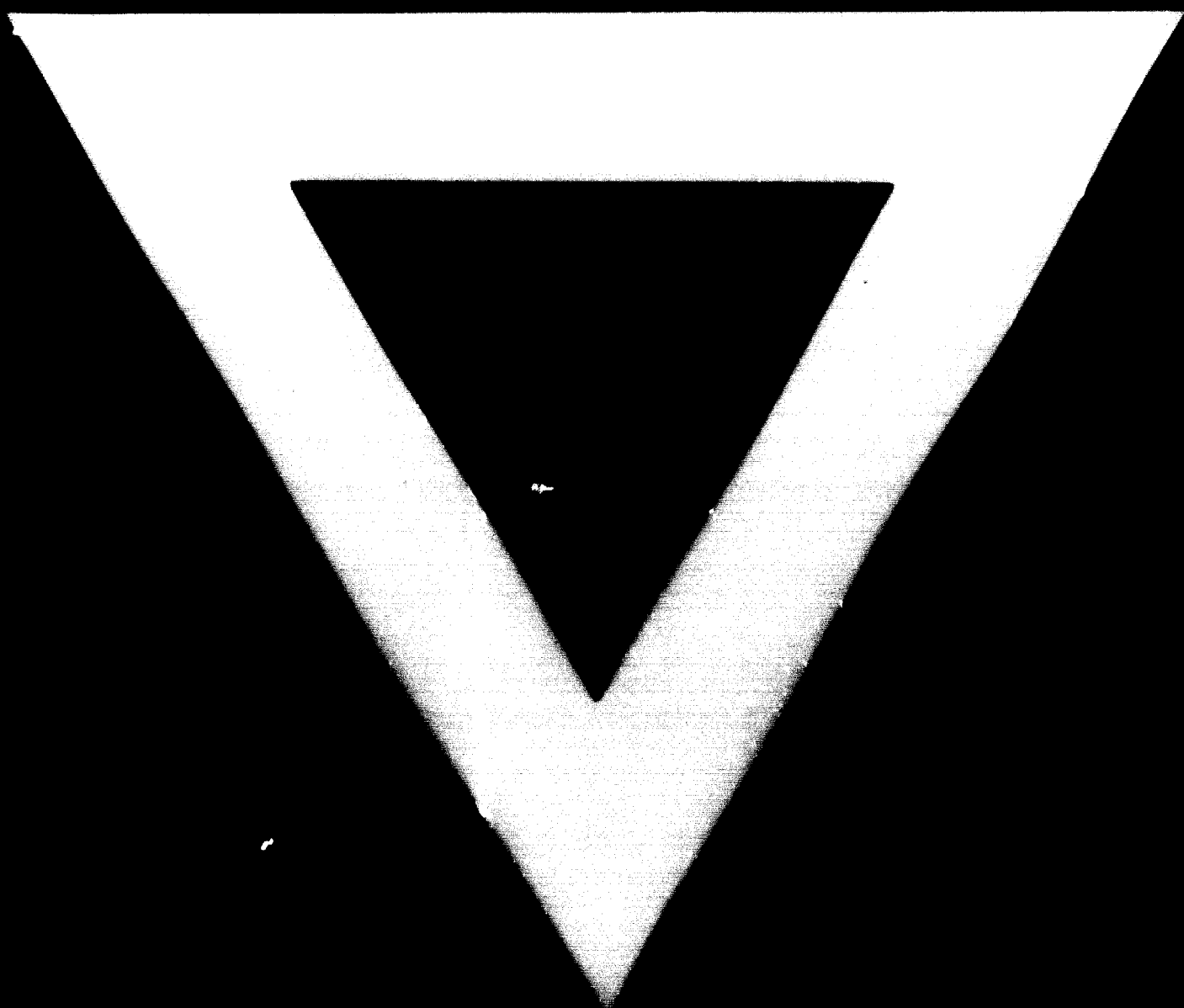
The execution of this project besides, utilising the waste, will help greatly in supplying the Standard Furniture Plant with the chipboard required for the furniture production, as principal material.

The two above mentioned projects are considered complementary to each other.

We mention hereunder the data of the project:

- Production capacity: 10,000 m³ per year, estimated value L.E. 400,000.
- Investments: L.E. 200,000.
- Material required: Principal material: 13,000 tons of waste/year
(locally available)
Auxiliary material: 700 tons/year Urea formaldehyde
(locally available)
Paraffin: 100 tons/year
(locally available).





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