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FOREST SERVICE In Cooperation with the University of Wisconsin

UNITED STATES DEPARTMENT OF AGRICULTURE

TABLE OF CONTENTS

	Page
Instructions for obtaining publications	2
Fungus effects on forest products	3
Glued wood construction	3
The growth, structure, and identification of wood	5
Insulation and moisture control	6
Joints and fastenings	7
Mechanical properties and structural uses of wood and wood products	8
The seasoning of wood	15
Wood finishing subjects	17
Wood preservation and protection	19
Miscellaneous	22
Other publication lists issued by the Forest Products Laboratory	23

INSTRUCTIONS FOR OBTAINING PUBLICATIONS

Publications available for distribution at this Laboratory are marked with an asterisk (*).

Single copies of technical notes, reprints, and processed reports may be obtained free upon request from the Director, Forest Products Laboratory, Madison 5, Wis.

Federal Government bulletins, circulars, and leaflets, if not available for free distribution at this Laboratory, may be purchased at the price indicated from the Superintendent of Documents, Government Printing Office, Washington 25, D.C. Send money order, draft, or cash; stamps or personal checks are not accepted.

Trade journals containing articles herein listed may be purchased from the publishers or consulted in various libraries.

The Forest Products Laboratory reserves the right to furnish only those publications which in its judgment will give the information requested. Blanket requests or requests for a large number of copies of any individual article will not be filled except in unusual cases.

FUNGUS EFFECTS ON FOREST PRODUCTS

Technical Notes

- *225 Cause and prevention of blue stain in wood. 1958.
- *229 Comparative decay resistance of heartwood of different native species when used under conditions that favor decay. Revised 1961.

Other Publications

*Making log cabins endure. FPL Rept. 982. Revised 1960.

- *Condensation and decay prevention under basementless houses, by C. S. Moses. FPL Rept. 2010. 1959.
- *Factors that influence the decay of untreated wood in service and comparative decay resistance of different species. FPL Rept. 68. 1958.
- *Control of decay and sap stain in logs and green lumber, by T. C. Scheffer. FPL Rept. 2107. 1958.
- *Protecting green lumber from decay during shipment. Special Release No. 26. Information reviewed and reaffirmed 1958.
- Decay in exterior millwork, by R. M. Lindgren. For. Prod. Jour. 5(3): 163-164, June 1955.
- *Sapstain control treatments before or after dressing, by Carl Hartley. Special Release No. 27, 1955.
- Stains of sapwood and sapwood products and their control, by T. C. Scheffer and R. M. Lindgren. U.S. Dept. Agr. Tech. Bull. 714, 1940. 20 cents from GPO.

GLUED WOOD CONSTRUCTION

Technical Notes

- *255 Hand-operated portable glue spreader. 1952.
- *256 How to select a woodworking glue. 1958.
- *257 Woodworking glues of natural origin. Information reviewed and reaffirmed 1960.

-3-

*258 Synthetic resin glues for wood. 1958.

1081

GLUED WOOD CONSTRUCTION (continued)

- *Selbo, M. L. A new method for testing glue joints of laminated timbers in service. For. Prod. Jour. 12(2):65-67, Feb. 1962.
- *Adhesives for the future of the wood industry, by R. F. Blomquist. Adhesives Age 4(6):20-27, June 1961.
- *Paper overlaid lumber, by B. G. Heebink. For. Prod. Jour. 11(4):167-175, Apr. 1961.
- Adhesives for structural laminated lumber, by M. L. Selbo. Adhesives Age 4(2):22-25, Feb. 1961.
- *Importance of balanced construction in plastic-faced wood panels, by B. G. Heebink, FPL Rept. 2197, 1960.
- *The future of adhesives in the wood industry, by R. F. Blomquist and H. O. Fleischer. For. Prod. Jour. 10(12):626-630, Dec. 1960.
- *Adhesives and their application to fabrication of farm structures, by Don Brouse. FPL Rept. 2178, 1960.
- *The gluing of treated lumber, by M. L. Selbo. Amer. Wood-Preservers' Assn. Proc., 1960.
- *Glue joints durable--12-year tests in preservative-treated laminated timbers reported, by M. L. Selbo. South. Lbrmn. 197(2465):171-178, Dec. 12, 1958.
 - New veneer products through research, by J. F. Lutz and H. O. Fleischer. Veneers & Plywood 52(10):10-11, 24, 27, Oct. 1958.
- *Studies of the strength of glued laminated wood construction, by A. D. Freas. Amer. Soc. Testing Materials Bull. No. 170, Dec. 1950. Information reviewed and reaffirmed 1958.
- *Laminating of preservative-treated wood, by M. L. Selbo. Amer. Wood-Preservers' Assn. Proc. 1957, Vol. 53, pp. 48-54.
- *Factors affecting strength and design principles of glued laminated construction, by A. D. Freas. FPL Rept. 2061. 1956.

Other Publications (continued)

- *Scarf joints prove feasible for large laminated members, by Fred Werren. Wood and Wood Prod. 61(7):22, 80-81, July 1956.
- *Results of accelerated tests and long-term exposures on glue joints in laminated beams, by T. R. Truax and M. L. Selbo. FPL Rept. 1729. 1956.
- *Durability of woodworking glues for dwellings, by M. L. Selbo. For. Prod. Res. Soc. Proc. 1949. Information reviewed and reaffirmed 1956.
- *Fabrication and design of glued laminated wood structural members, by A. D. Freas and M. L. Selbo. U.S. Dept. Agr. Tech. Bull. 1069. 1954.
 - Laminated southern pine, by A. D. Freas. South.Lbrmn. 187(2345):168-169, Dec. 15, 1953.
 - The glued laminated wooden arch, by T. R. C. Wilson. U.S. Dept. Agr. Tech. Bull. 691. 1939. 20 cents from GPO.

THE GROWTH, STRUCTURE, AND IDENTIFICATION OF WOOD

Technical Notes

- *103 How to distinguish mahogany and walnut from sweetgum. 1953.
- *116 How to tell birch, beech, and maple apart. 1952.
- *125 Identification of oak woods. 1952.
- *153 "Virgin growth" and "second growth." 1957.
- *162 Distinguishing characteristics of mahogany and woods commonly called mahogany. 1952.
- *187 What is meant by "hardwoods" and "softwoods?" 1960.
- *189 Differences between heartwood and sapwood. 1952.
- *198 The identification of Douglas-fir wood. 1958.
- *209 The structure of a softwood. 1958.
- *210 The structure of a hardwood. 1952.

Other Publications

- *How growth affects quality in hardwood lumber, by B. H. Paul. South. Lbrmn. 201(2512):31-32, Dec. 1, 1960.
 - Color in walnut veneer, by J. F. Lutz. Veneers & Plywood 52(11):15, 21-22, Nov. 1958.
 - Wood: Colors and kinds, by Forest Products Laboratory. U.S. Dept. of Agr. Ag. Handbook 101, 36 pp., illus., Oct. 1956. 50 cents from GPO.
 - The identification of furniture woods, by Arthur Koehler. U.S. Dept. Agr. Misc. Circ. 66. 1926. 25 cents from GPO.
 - Guidebook for the identification of woods used for ties and timbers, by Arthur Koehler. U.S. Dept. Agr. unnumbered publication. 1917. 30 cents from GPO.

INSULATION AND MOISTURE CONTROL

- *Remedial measures for building condensation difficulties, by L. V. Teesdale. FPL Rept. 1710. Information reviewed and reaffirmed 1960.
- *Condensation problems in modern buildings, by L. V. Teesdale. Lumber Cooperator, Mar. 1939; Bldg. Supply News, Apr. 1939; Heating & Ventilating, Air Conditioning, Apr. 1939. FPL Rept. 1196. 1959.
- *Insulation and ventilation prevent condensation in barns, by L. V. Teesdale and M. E. Dunlap. FPL Rept. 1720. 1959.
- *Water-vapor permeability of matched barrier materials as yielded by two methods, by L. V. Teesdale. FPL Rept. 2131. 1958.
- *Condensation problems in farm buildings, by L. V. Teesdale. Agr. Engr., Sept. 1939; FPL Rept. 1186. 1958.
- *Thermal insulation made of wood-base materials: Its application and use in houses, by L. V. Teesdale. FPL Rept. 1740. 1958.
- *Comparative resistance to vapor transmission of various building materials, by L. V. Teesdale. Heating, Piping & Air Conditioning. Dec. 1942. Information reviewed and reaffirmed 1956.

Other Publications (continued)

*Moisture condensation in barns, by L. V. Teesdale. FPL Rept. 1231. 1956.

- Condensation control in dwelling construction, by Forest Products Laboratory in collaboration with Housing & Home Finance Agency. H&HFA unnumbered report. 1950. 25 cents from GPO.
- Attic condensation. Housing & Home Finance Agency Tech. Bull. 6, Sept. 1948.
- Window conditioning urged to halt condensation, by F. L. Browne. Am. Bldr. & Bldg. Age, Aug. 1938; Am. Lbrmn., Nov. 5, 1938; Miss. Valley Lbrmn., Oct. 28, 1938.

JOINTS AND FASTENINGS

Technical Notes

- *149 Strength of screw fastenings in plywood. 1958.
- *236 Nail-holding power of American woods. 1958.
- *243 General observations on the nailing of wood. 1957.
- *247 Nailing dense hardwoods. 1953.

- *Spacing of sixpenny and eightpenny nails in Douglas-fir multinail joints, by Agustin N. Ramos, Jr. FPL Rept. No. 2155. 1960.
- *Slant driving of nails! Does it pay? by L. J. Markwardt and J. M. Gahagan. Packing and Shipping, Jan. 1930; FPL Rept. 954. 1957.
- *Strength of nailed joints in frame walls, by J. A. Scholten and E. G. Molander. Agr. Eng. 31(11):551-555, Nov. 1950. Information reviewed and reaffirmed 1956.
- Technique of house nailing, by the Forest Products Laboratory in cooperation with the Housing & Home Finance Agency, Washington, D.C. Nov. 1947. 20 cents from GPO.

JOINTS AND FASTENINGS (continued)

Other Publications (continued)

- Timber-connector joints: Their strength and design, by J. A. Scholten. U.S. Dept. Agr. Tech. Bull. 865. 1944.
- *Lag-screw joints: Their behavior and design, by J. A. Newlin and J. M. Gahagan. U.S. Dept. Agr. Tech. Bull. 597. 1938.

MECHANICAL PROPERTIES AND STRUCTURAL USES

OF WOOD AND WOOD PRODUCTS

Technical Notes

- *B-14 Methods of determining the specific gravity of wood. 1956.
- *101 Comparative value of timber cut from live and dead trees. 1958.
- *119 Strength of southern pine and Douglas-fir compared. Reissued 1961.
- *131 Properties of ordinary wood compared with plywood. 1952.
- *171 Red hickory as strong as white hickory. 1953.
- *180 Comparative strength of air-dried and kiln-dried wood. Reissued 1961.
- *215 The white pine group. 1957.
- *218 Weights of various woods grown in the United States. Reissued 1961.
- *245 Suitability of woods for use in the frame house. 1952.
- *246 Suitability of woods for use in barns and other farm structures. 1953.
- *260 Estimating the weight of plywood. 1956.
- *261 Segmental rafters for gothic-roofed farm buildings. 1958.

- Wood floors for dwellings. USDA Agr. Hdbk. No. 204, 44 pp., Sept. 1961. 35 cents from GPO.
- *Recent progress toward an understanding of the physical and mechanical properties of wood, by R. L. Youngs. For. Prod. Jour. 11(5):214-225, May 1961.
- *Working stresses for farm building lumber, by L. W. Wood. Agric. Eng., Vol. 42, No. 1, pp. 18-21, Jan. 1961.

OF WOOD AND WOOD PRODUCTS (continued)

- *Evaluation of the stiffness of a roof system made of glued-laminated beams and heavy timber decking, by Fred Werren. FPL Rept. 2229, 1961.
- *New method of calculating longitudinal shear in checked wooden beams, by J. A. Newlin, G. E. Heck, and H. W. March. Amer. Soc. Mech. Engr. Trans., Oct. 1934. Information reviewed and reaffirmed 1961.
- *Thermal conductivity of paper honeycomb cores and sound absorption of sandwich panels, by D. J. Fahey, M. E. Dunlap, and R. J. Seidl. FPL Rept. 1952. Information reviewed and reaffirmed 1961.
- *The use of wood in tomorrow's house, by H. O. Fleischer. For. Prod. Jour. 10(12):648-650, Dec. 1960.
- *Selecting farm framing lumber for strength, by L. W. Wood. USDA Leaflet No. 481, Nov. 1960.
- *Fabricated wall panels with plywood coverings, by R. F. Luxford. FPL Rept. 1099. Information reviewed and reaffirmed 1960. Also Wood Products, Feb. 1936; Timberman, Feb. 1936.
- *Floor panels with stressed plywood coverings, by G. W. Trayer. FPL Rept. 1026. Information reviewed and reaffirmed 1960. Also Eng. News-Record, Aug. 1934.
- *Mechanical properties of Engelmann spruce, by J. T. Drow. FPL Rept. 1944-4. Revised 1960.
- *Properties of insulating fiberboard sheathing, by R. F. Luxford. FPL Rept. 2032. Information reviewed and reaffirmed 1960.
- *Rigidity and strength of wall frames braced with metal strapping, by E. C. O. Erickson. FPL Rept. 1603. Information reviewed and reaffirmed 1960.
- *Use of Engelmann spruce for house construction, by R. F. Luxford. FPL Rept. 1944-1, 1960.

OF WOOD AND WOOD PRODUCTS (continued)

Other Publications (continued)

- *Long-term case study of sandwich panel construction in FPL experimental unit, by L. J. Markwardt and L. W. Wood. FPL Rept. 2165. 1959 and
- Case studies of four sandwich panel houses, by L. J. Markwardt and L. W. Wood. FPL Rept. PE-182. 1959.
- *Bonding wood veneer flooring to concrete subfloors, by H. W. Eickner. Veneers and Plywood, 53(9):18-19, 21, 24, Sept. 1959.

*Hollow core flush doors. FPL Rept. 1983. 1959.

- Toward building code requirements for wood, by L. W. Wood. Magazine of Standards (Am. Standards Assn.) 30(6):169-171, June 1959.
- *Strength tests of spliced studs, by E. C. O. Erickson. FPL Rept. 1275. 1959.
- *Structural values of old lumber, by L. W. Wood. South. Lbrmn. 189(2369): 158-160, Dec. 15, 1954; also FPL Rept. 2009. 1959.
- *The role of inspection in wood ladder safety, by L. J. Markwardt. FPL Rept. 1994. 1959.
- *Research in wind-resistant farm building construction, by D. V. Doyle. FPL Rept. 1930. 1959.
- *Strength of wood beams of rectangular cross section as affected by spandepth ratio, by S. C. Bechtel and C. B. Norris. FPL Rept. 1910. 1959.
- *Structural sandwich design criteria, by E. W. Kuenzi. FPL Rept. 2161. 1959.
- The factor of safety in design of timber structures, by L. W. Wood. Paper 1838, Jour. of the Structural Div. Proc. of the Am. Soc. Civil Engrs. Vol. 84, No. ST7, Nov. 1958.
- *Sandwich panels for building construction, by L. W. Wood. FPL Rept. 2121. 1958.

OF WOOD AND WOOD PRODUCTS (continued)

- *Performance of structural pole framing under test load, by D. V. Doyle. FPL Rept. 2111. 1958.
- *Light wood trusses, by R. F. Luxford. Jour. of the Struc. Div., 1958 Proc. Paper 1839 of the Amer. Soc. of Civil Engrs. Also FPL Rept. 2113. 1958.
- *Simplified principles for structural grading of timber, by L. J. Markwardt and L. W. Wood. FPL Rept. 2112. 1958.
- *Use development for particle board, by W. C. Lewis. For. Prod. Jour. 8(2): 27A-30A. 1958.
- *Prefabricated house system developed by the Forest Products Laboratory, Madison, Wis., by R. F. Luxford. FPL Rept. 1165. Information reviewed and reaffirmed 1958.
- *Selection of lumber for farm and home building, by C. V. Sweet and R. P. A. Johnson. U.S. Dept. Agr. Farm. Bull. 1756. 1936. Slightly revised 1958.
- *Evaluation of the factor of safety in structural timbers, by L. W. Wood and Marilyn Tasker. FPL Rept. 2068. 1957.
 - Report on U.S. Forest Products Laboratory tests of full-size structural diaphragms, by R. P. A. Johnson. Amer. Soc. for Testing Materials Spec. Tech. Pub. 209, 1957.
- *...Also: Diaphragm action of diagonally sheathed wood panels, by D. V.
 Doyle. FPL Rept. 2082. 1957.
- *Observations of damage to houses by high winds, waves, and floods and some construction precautions, by R. F. Luxford and Walton R. Smith. FPL Rept. 2095. 1957.
- *Recommended building code requirements for wood or wood-base materials, by L. W. Wood. FPL Rept. 2075. 1957.
- *Composite wood--trends in the United States, by Don Brouse. Composite Wood (India Forest Service) 4(1-2):37-44, Jan. and Mar. 1957.

OF WOOD AND WOOD PRODUCTS (continued)

- *The designing for strength of flat panels with stressed coverings. FPL Rept. 1220. 1957.
- *The bending strength and stiffness of plywood, by Alan D. Freas. FPL Rept. 1304. 1956.
- *Testing and evaluating procedures for building boards, by Wayne C. Lewis. For. Prod. Jour. 6(7): 241-246, July 1956.
- *The influence of rate of loading on the strength of wood and wood-base materials, by L. J. Markwardt and J. A. Liska. Reprint from the Amer. Soc. Testing Materials Symposium on Speed of Testing. 1956.
- *W-type roof trusses--why are they better than joist-and-rafter framing? by R. F. Luxford. Wood Construction & Bldg. Materialist 4(5): 20-21, May 1956.
- *Paper honeycomb cores from structural sandwich panels, by R. J. Seidl in cooperation with Housing & Home Finance Agency. FPL Rept. 1918. 1956.
- *Behavior of radiant heated hardwood floors, by J. S. Mathewson. Heating & Ventilating 47(9): 63-66, Sept. 1950. Information reviewed and reaffirmed 1956.
- *California red fir compares favorably with other western species, by J. T. Drow and L. N. Ericksen. Calif. Lumber Merchant, Dec. 1, 1947. Information reviewed and reaffirmed 1956.
- *Guides to improved framed walls for houses, by A. D. Freas. Eng. News-Record, Oct. 17, 1946. Information reviewed and reaffirmed 1956.
- *Bearing strength of wood at angle to the grain, by J. A. Newlin. Eng. News-Record, May 11, 1939. Also FPL Rept. 1203. 1956.
- *All-wood panel system of construction is extended, by R. F. Luxford and August Smerda, Jr. Wood Construction, May 1, 1935. Information reviewed and reaffirmed 1956.

OF WOOD AND WOOD PRODUCTS (continued)

- *How to avoid nail popping in dry-wall construction, by R. F. Luxford. FPL Rept. 2036. 1955.
- *Some potentialities of overlaid lumber, by B. G. Heebink, R. J. Seidl, D. F. Laughnan, and R. F. Blomquist. For. Prod. Jour. 5(2):97-101, Apr. 1955.
 - Wood frame house construction. U.S. Dept. Agr. Handbook No. 73. 1955. 65 cents from GPO.
 - Wood handbook--basic information on wood as a material of construction with data for its use in design and specification. U.S. Dept. Agr., Ag. Handbook No. 72, 1955, 528 pp. Available from the Superintendent of Documents, GPO, Washington 25, D.C., \$2.00, cash or money order (stamps not accepted).
- *Structural performance requirements in housing codes, by L. W. Wood. Am. Soc. Testing Materials Reprint from Symposium on Methods of Testing Building Const., Spec. Tech. Pub. 166. 1954.
- *A study of farm building materials on farms in the N. Central Region.
 I. A field survey of wood shingle roofs, by A. C. Dale and J. L. Schmidt (filed FPL under Scholten). Station Bull. 601, Purdue Univ. Ag. Exp. Station. 1954.
- *Use and abuse of wood, by R. F. Luxford and O. C. Heyer. South. Lbrmn. 188(2350):35, 36, 38-39, Mar. 1, 1954.
- *Wood as an engineering material, by L. J. Markwardt. Civil Engineering, p. 165-170, Sept. 1952.
- *Are present wall constructions structurally sound? by E. W. Kuenzi. For. Prod. Res. Soc. Jour. Vol. II, No. 5, Dec. 1952.
- *Developments and trends in lightweight composite construction, by L. J. Markwardt. Reprint from ASTM Spec. Tech. Pub. No. 118, pp. 3-31, 1952.

OF WOOD AND WOOD PRODUCTS (continued)

- *Trends in house construction, by L. O. Anderson. For. Prod. Res. Soc. Jour. Vol. II, No. 5, Dec. 1952.
- *Veneer flooring, by B. G. Heebink. For. Prod. Res. Soc. Jour. 2(3): 138-140, Sept. 1952.
 ... Also: South. Lbrmn. 185(2318): 53, Dec. 1, 1952.
 - Basement vs. no basement. Housing & Home Finance Agency Tech. Bull. No. 8, Jan. 1949.
- *Prefabricated wood house construction in the United States, by L. J. Markwardt and F. A. Strenge. Reprint from the Proceedings of the 3d World Forestry Congress, No. 1, 14 pp., illus., 1949.
 - Properties of experimental wood-base house flooring materials (including a tentative test procedure for flooring). Housing & Home Finance Agency Tech. Paper No. 11, Nov. 1948.
 - Reuse of structural lumber, by L. W. Wood. Constructor 30(8):52-53, Aug. 1948; Mill & Factory 43(4):118-119, Oct. 1948.
 - Wood roof trusses. Housing & Home Finance Agency Tech. Bull. No. 2, Jan. 1948.
- *Manual on wood construction for prefabricated houses, by Forest Products Laboratory. Published by Housing & Home Finance Agency, Washington, D. C. 1947.
 - Use and abuse of wood in house construction, by R. P. A. Johnson and E. M. Davis. U.S. Dept. Agr. Misc. Pub. 358. 1939. 10 cents from GPO.
 - Strength and related properties of woods grown in the United States, by T. R. C. Wilson and L. J. Markwardt. U.S. Dept. Agr. Tech. Bull. 479. 1935. Out of print.
 - Strength-moisture relations for wood, by T. R. C. Wilson. U.S. Dept. Agr. Tech.. Bull. 282. 1932. Out of print.

OF WOOD AND WOOD PRODUCTS (continued)

Other Publications (continued)

- *Comparative strength properties of woods grown in the United States, by L. J. Markwardt. U.S. Dept. Agr. Tech. Bull. 158. 1930.
 - Tests of large timber columns and presentation of the Forest Products Laboratory column formula, by J. A. Newlin and J. M. Gahagan. U.S. Agr. Tech. Bull. 167. 1930. 15 cents from GPO.
- *Properties of western hemlock and their relation to uses of the wood, by R. P. A. Johnson and W. H. Gibbons. U.S. Dept. Agr. Tech. Bull. 139. 1929.

THE SEASONING OF WOOD

Technical Notes

- ***F-15** Effect of time of cutting timber on its durability. 1958.
- ***F-33** Comparative durability of green and seasoned timber. 1958.
- *181 Coatings for minimizing changes in the moisture content of wood. Revised 1960.
- *186 Coatings that prevent end checks. 1959.
- *213 Detection and relief of casehardening and final moisture content tests in kiln-dried lumber. Revised 1958.
- *233 Approximate air-drying and kiln-drying periods for 1-inch lumber. Revised 1960.
- *234 Longitudinal shrinkage of wood. 1952.
- *248 Computed thermal conductivity of common woods. 1952.

- *Wind-powered solar-heated lumber dryer, by C. L. Johnson. South. Lbrmn. 203(2532): 41-42, 44, Oct. 1, 1961.
 - Dry kiln operator's manual, by E. F. Rasmussen. USDA Ag. Hdbk. No. 188, 197 pp., Mar. 1961. \$1.00 from GPO.

THE SEASONING OF WOOD (continued)

Other Publications (continued)

Dry Kiln Operator's Manual.

*Separate chapters available upon specific request:

- 1. Properties of wood related to drying.
- 2. Kiln types and features.
- 3. Auxiliary kiln equipment.
- 4. Inspection and maintenance of dry kilns and equipment.
- 5. Stacking lumber and other items for kiln-drying.
- 6. Kiln samples.
- 7. Loading the dry kiln.
- 8. Kiln schedules and drying time.
- 9. Drying defects.
- 10. Operating a dry kiln.
- 11. Storage of wood.
- *Coatings for the prevention of end checks in logs and lumber, by J. M. McMillen. FPL Rept. 1435. Information reviewed and reaffirmed 1961.
- *Method of calculating shrinkage or swelling of wood with change in moisture content, by E. C. Peck. FPL Rept. 1769-27, 1960.
- *Some effects of storage on seasoned lumber, by J. S. Mathewson and E. F. Rasmussen. FPL Rept. 1071, 1959.
- *Electrical moisture meters for wood, by W. L. James. FPL Rept. 1660. 1958.
- *A method of seasoning small quantities of lumber, by E. F. Rasmussen. FPL Rept. 1608. Information reviewed and reaffirmed 1958.
- *Importance of dry lumber, by R. C. Rietz. FPL Rept. 1779. 1957.
 ...Also: Importance of seasoning, by R. C. Rietz. South. Lbrmn. 195 (2441): 97-99, Dec. 15, 1957.
- *Mechanical properties of red oak related to drying, by R. L. Youngs. For. Prod. Jour. 7(10): 315-24, Oct. 1957.
- *How wood shrinks and swells, by E. C. Peck. For. Prod. Jour. 7(7):235-244, July 1957.
- *How plastering affects the moisture content of structural and finish woodwork, by L. V. Teesdale. Miss. Valley Lbrmn., Oct. 20, 1933; Amer. Lbrmn., Dec. 22, 1934; also FPL Rept. 1274. 1956.

THE SEASONING OF WOOD (continued)

Other Publications (continued)

- *Preventing cracks in new wood floors, by L. V. Teesdale and J. S. Mathewson. U.S. Dept. Agr. Leaflet 56. 1952.
- *Hygrometric instruments "say when" to lay wood floors over concrete subfloors, by M. E. Dunlap. Instruments, Feb. 1933.
 - The air seasoning of wood, by J. S. Mathewson. U.S. Dept. Agr. Tech. Bull. 174. 1930. 35 cents from GPO.

WOOD FINISHING SUBJECTS

Technical Notes

*195 Some books and pamphlets on finishing of wood and furniture. Revised 1961.

Other Publications

*Forest Products Laboratory natural finish. FPL Rept. 2096. Revised 1961.

- *Wood siding left to weather naturally, by F. L. Browne. South. Lbrmn. 141-143, Dec. 1960.
- *The preservative treatment and staining of shingles, by F. L. Browne. FPL Rept. 761. Revised 1960.
- *A survey of the properties of commercial water repellents and related products, by F. L. Browne and L. E. Downs. FPL Rept. 1495. Information reviewed and reaffirmed 1960.
- *Finishing and maintaining wood floors, by F. L. Browne. FPL Rept. 2169. 1959.
- *Effects of wood on durability of finishes, by D. F. Laughnan. For. Prod. Jour. 9(2): 19A-21A, Feb. 1959.

WOOD FINISHING SUBJECTS (continued)

- *The two-coat system of house painting, by F. L. Browne. FPL Rept. 1259. 1958.
- ... Also: Indus. & Eng. Chem., July 1941.
- What's new in wood finishes? by F. A. Strenge. NAHB Jour. of Homebuilding 12(5): 41-42, May 1958.
- Paints for exteriors of houses, by D. F. Laughnan. The Mag. of Prefabrication 6(3): 36-39, Mar. 1958.
- *Wood properties that affect paint performance, by F. L. Browne. FPL Rept. 1053. 1958.
- *Paint peeling, causes and cures, by D. F. Laughnan. TP-70. 1958.
- *Wood siding, how to install it, paint it, care for it. U.S. Dept. Agr. Home and Garden Bull. 52, 13 pp., Oct. 1956.
- *Natural wood finishes for exteriors of houses, by D. F. Laughnan. Preprint For. Prod. Res. Soc. 8th Ann. Natl. Meeting, Grand Rapids, Mich., May 1954.
- *The program of paint maintenance for the frame house, by F. L. Browne. Amer. Home, Apr. 1937. FPL Rept. 1127. 1954.
- *How often should a house be painted: An experimental study of programs of paint maintenance, by F. L. Browne and D. F. Laughnan. Paint, Oil & Chem. Review 115(16): 16-18, 32-35, July 31, 1952 and 115(17): 26, 42, 44-47, Aug. 14, 1952.
 ...Also: For. Prod. Res. Soc. Jour. Vol. II, No. 5, Dec. 1952.
- Modification of wood and plywood to improve paintability, by F. L. Browne and D. F. Laughnan. For. Prod. Res. Soc. Jour. 2(3):3-24, Sept. 1952.
- *Paint performance on forest products, by F. L. Browne and D. F. Laughnan. FPL Rept. 1926. 1952.
 - Painting the farm and city home, by F. L. Browne. USDA Yearbook of Agriculture 1949, pp. 625-630.

Other Publications (continued)

- Wood properties and paint durability, by F. L. Browne. U.S. Dept. Agr. Misc. Pub. 629. 1947. 10 cents from GPO.
- Repainting the paint-neglected house, by F. L. Browne. Natl. Painters' Mag., Apr. 1935.
- Some causes of blistering and peeling of paint on house siding, by F. L. Browne. Amer. Paint & Var. Mfrs. Assn., Sci. Sec., Oct. 1927.
- When and how to paint homes and farm buildings, by F. L. Browne. President's Conf. on Home Bldg. & Home Ownership, Final Reports of Comms., V. 7, Farm & Village Housing, 1932.
- Testing house paints for durability, by F. L. Browne. Jour. of Chem. Education, Sept. 1933.

WOOD PRESERVATION AND PROTECTION

Technical Notes

- *135 Split posts and round posts. 1952.
- *163 Determining penetration of wood preservatives. 1952.
- *165 When preservative treatment of wood is an economy. Revised 1962.
- *177 Properties of a good wood preservative. 1957.
- *229 Comparative decay resistance of heartwood of different native species when used under conditions that favor decay. 1953.
- *251 Prevention and control of decay in dwellings. 1952.

Other Publications

*Comparison of wood preservatives in Mississippi post study (1961 progress report), by J. O. Blew and J. W. Kulp. FPL Rept. 1757. Revised 1962.

*Comparison of wood preservatives in stake tests (1961 progress report), by J. O. Blew. FPL Rept. 1761. Revised 1962.

WOOD PRESERVATION AND PROTECTION (continued)

- *How good is wood in a fire? by R. H. Hamre. Forest Farmer 20(11):8-9, 18-19, July 1961.
- *Fire-resistance tests of plywood-covered wall panels. FPL Rept. 1257. Information reviewed and reaffirmed 1961.
- *How to treat fence posts by double diffusion, by R. H. Baechler. FPL Rept. 1955. Revised 1961.
- *Treating wood by the cold-soaking method, by J. O. Blew. FPL Rept. 1445. Revised 1961.
- *What can be expected from treated wood in highway construction, by J. O. Blew, Jr. FPL Rept. 2235, 1961.
- *Decay resistance of experimental and commercial particle board, by J. W. Clark. FPL Rept. 2196. 1960.
- *Making log cabins endure. FPL Rept. 982. Revised 1960. ...Also: Amer. Forests, June 1933.
- *The performance of wood in fire, by H. O. Fleischer. FPL Rept. 2202, 1960.
- *The preservative treatment and staining of shingles, by F. L. Browne. FPL Rept. 761. Revised 1960.
- *Treatment of sawdust insulation for protection against mold, decay, insects, rodents, and fire. FPL Rept. 1092. Information reviewed and reaffirmed 1960.
- *Surface flammability of various wood-base building materials, by H. D. Bruce and L. E. Downs. FPL Rept. 2140. 1959.
- *Water-repellent preservatives reduce rain-caused paint blistering on wood siding, by L. V. Teesdale. FPL Rept. 1990. 1959.
- *Experimental dwelling-room fires, by H. D. Bruce. FPL Rept. 1941. 1959.

WOOD PRESERVATION AND PROTECTION (continued)

Other Publications (continued)

- *Fire-test methods used in research at the Forest Products Laboratory. FPL Rept. 1443. 1959.
- *Wood houses can be fire-safe houses, by H. D. Bruce and Don Fassnacht. Forests & People, Fourth quarter, 1958.
- *Fire-resistance tests of solid wood flush doors, by V. P. Miniutti. For. Prod. Jour. 8(4):141-144, Apr. 1958.
- *Ignition and charring temperatures of wood. FPL Rept. 1464. 1958.
- *Wood seats for stadiums, by R. M. Wirka. Eng. News-Record, Apr. 30, 1931. FPL Rept. 1006. 1958.
- *Preservative treatment of window sash and other millwork, by F. L. Browne. FPL Rept. 919. 1958.
- *Factors that influence the decay of untreated wood in service and comparative decay resistance of different species. FPL Rept. 68. 1958.

*Fire-retardant treatments for wood. FPL Rept. 2081. 1957.

- *Preservative treatment of fence posts and farm timbers, by J. O. Blew and F. J. Champion. U.S. Dept. Agr. Farm. Bull. 2049. 1956.
- *Making wood fire retardant, by T. R. Truax. FPL Rept. 1760. 1956.
- *Evaluation of flame-spread resistance of fiber insulation boards, by Arthur Van Kleeck and T. J. Martin. FPL Rept. 1756. 1956.
- *Production of preservative-treated laminated timbers, by T. R. Truax, J. O. Blew, and M. L. Selbo. AWPA Proc. 1953.
 - Rate of disintegration of wood under different heating conditions, by J. D. MacLean. AWPA Proc. Vol. 47, pp. 155-168, 1951.

Technical Notes

- *240 A hundred definitions pertaining to wood and other forest products. 1958.
- *250 Treating spruce and balsam fir Christmas trees to reduce fire hazard. 1952.

Other Publications

- Product research on northeast woods can develop new markets, by H. O. Fleischer. The Northeastern Logger 10(8):10-11, 26, Feb. 1962.
- *Effect of heat on the decay resistance of wood, by T. C. Scheffer and W. E. Eslyn. For. Prod. Jour. 11(10): 485-490, Oct. 1961.
- *Annual report of the Forest Products Laboratory for Calendar Year 1961.
- *Some books about wood, compiled by Forest Products Laboratory. FPL Rept. 399. Revised 1961.
- *Some publications on domestic and foreign woods, by Forest Products Laboratory. FPL Rept. 1479. Revised 1961.
- *Standard terms for describing wood, by L. J. Markwardt and G. E. Heck.
 FPL Rept. 1169. Information reviewed and reaffirmed 1961.
 ...Also: For. News Digest, Jan. 1938; Jour. of For., Jan. 1938.
- *Fifty years of service through wood research. Miscellaneous Publication No. 820, April 1960.
- *The Forest Products Laboratory: A Golden Anniversary Record, 108 pp., 1960.

*Modified woods, by A. J. Stamm. FPL Rept. 2192, 1960.

- *The U.S. Forest Products Laboratory, by F. J. Champion. FPL Rept. 1698. Revised 1960.
 - How standards serve the wood industries, by L. J. Markwardt. Magazine of Standards (Am. Standards Assn.) 30(6)164-168, June 1959.

Other Publications (continued)

- *The U.S. Forest Products Laboratory, by J. A. Hall. Jour. of Forestry 56(8): 556-560, Aug. 1958.
 - Development of new products, by J. A. Hall. The Forest Farmer (Atlanta, Ga.), 17(11):12, 30, July 1958.
 - "The Madison Lab"--47 years of wood research paying dividends to builders, by L. J. Markwardt. NAHB Jour. of Home Building 12(1): 44-47, Jan. 1958.
- *Why and where--as an engineering material--wood is versatile, strong, economical, by F. J. Champion. Part I. Plant Engineering, Mar. 1956. Floors, walls, die models, acoustical tiles all prove...wood is what you make it, by F. J. Champion. Part II. Plant Engineering, June 1956.
- *Cut-stock possibilities in wood-consuming industries in Midwestern States (original Rept. dated 1948 by W. M. Sands and F. B. Malcolm). FPL Rept. 1724. 1956.
- *Paper and wood--a new team, by J. A. Hall. The Timberman 55(6), Apr. 1954; The Paper Industry 35(11):1209-1212, Feb. 1954.

OTHER PUBLICATION LISTS ISSUED BY THE

FOREST PRODUCTS LABORATORY

The following lists of publications which deal with the other investigative projects of the Forest Products Laboratory are obtainable upon request:

Boxing and Crating--Strength and serviceability of shipping containers, methods of packing.

Chemistry of Wood and Derived Products -- Chemical properties and uses of wood and chemical wood products, such as turpentine, alcohol, and acetic acid.

Fire Protection--Fire test methods, fire retarding chemicals and treatments, and fire behavior of treated and untreated wood, wood products, and wood structures.

OTHER PUBLICATION LISTS ISSUED BY THE

FOREST PRODUCTS LABORATORY (continued)

- Fungus Defects in Forest Products--Decay, stains, and molds in timber, buildings, and various wood products; antiseptic properties of protective materials.
- Furniture Manufacturers, Woodworkers and Teachers of Wood Shop Practice--Partial list of Government publications on growth, structure, and identification of wood; moisture content, physical properties, air seasoning, and kiln drying; grading, manufacturing, and waste utilization; strength and related properties and joints and fastenings; glues and gluing, veneer and plywood fabrication; box and crate construction.
- Glue and Plywood--Development of waterproof glues, preparation and application of various glues, plywood manufacturing problems.
- Growth, Structure, and Identification of Wood--Structure and identification of wood; the effect of cellular structure of wood on its strength, shrinkage, permeability, and other properties; the influence of environmental factors, such as light, soil, moisture, and fire, on the quality of wood produced; and secretions of economic value produced by trees and their exploitation.
- Logging, Milling, and Utilization of Timber Products -- Methods and practices in the lumber-producing and wood-consuming industries; standard lumber grades, sizes, and nomenclature; production and use of small dimension stock; specifications for small wooden products; uses for little-used species and commerical woods; and low-grade and wood waste surveys.
- Mechanical Properties of Timber--Strength of timber and factors affecting strength; design of wooden articles or parts where strength or resistance to external forces is of importance.
- Pulp and Paper--Suitability of various woods for pulp and paper, fundamental principles underlying the pulping and bleaching processes; methods of technical control of these processes; relation of the chemical and physical properties of pulps and the relation of these properties to the papermaking qualities of the pulps; waste in the industry, for example, decay in wood and pulp, utilization of bark, white water losses, etc.
- Seasoning of Wood--Experimental and applied kiln drying, physical properties, air drying, steam bending.

OTHER PUBLICATION LISTS ISSUED BY THE

FOREST PRODUCTS LABORATORY (continued)

- Structural Sandwich, Plastic Laminates, and Wood-Base Aircraft Components--Strength, selection, and character of aircraft wood, plywood, and wood and composite laminated and sandwich materials; fabrication and assembly problems; methods of calculating the strength.
- Thermal Properties of Wood--General information and the results of research on how wood is affected by and transmits heat.
- Wood Finishing Subjects -- Effect of coatings in preventing moisture absorption; painting characteristics of different woods, and weathering of wood.
- Wood Preservation--Preservative materials and methods of application; durability and service records of treated and untreated wood in various forms.
- Note: Since Forest Products Laboratory publications are so varied in subject matter, no single big list is issued. Instead, a list is made up for each Laboratory division. Twice a year, December 31 and June 30, a list is made up showing new reports for the previous 6 months. This is the only item sent regularly to the Laboratory's mailing list. Anyone who has asked for and received the proper subject lists and who has had his name placed on the mailing list can keep up to date on Forest Products Laboratory publications. Each subject list carries descriptions of all other subject lists.