

DONALD R. MACKAY

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COMMERCIAL STANDARD CS 173-50

**Heavy-Duty Alpha Cellulose-Filled
Melamine Tableware**

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A recorded
voluntary standard of the
trade published by
the U.S. Department
of Commerce



WITHDRAWN

U.S. DEPARTMENT OF COMMERCE
BUSINESS AND DEFENSE SERVICES ADMINISTRATION
OFFICE OF TECHNICAL SERVICES
Commodity Standards Division

With the cooperation of the
National Bureau of Standards

EFFECTIVE DATE

Having been passed through the regular procedures of the Commodity Standards Division, and approved by the acceptors hereinafter listed, this Commercial Standard is issued by the U.S. Department of Commerce, effective December 15, 1950.

CHARLES SAWYER, *Secretary.*

COMMERCIAL STANDARDS

Commercial Standards are developed by manufacturers, distributors, and users in cooperation with the Commodity Standards Division of the Office of Technical Services, Business and Defense Services Administration, and with the National Bureau of Standards. Their purpose is to establish quality criteria, standard methods of test, rating, certification, and labeling of manufactured commodities, and to provide uniform bases for fair competition.

The adoption and use of a Commercial Standard is voluntary. However, when reference to a Commercial Standard is made in contracts, labels, invoices, or advertising literature, the provisions of the standard are enforceable through usual legal channels as a part of the sales contract.

Commercial Standards originate with the proponent industry. The sponsors may be manufacturers, distributors, or users of the specific product. One of these three elements of industry submits to the Commodity Standards Division the necessary data to be used as the basis for developing a standard of practice. The division by means of assembled conferences or letter referenda, or both, assists the sponsor group in arriving at a tentative standard of practice and thereafter refers it to the other elements of the same industry for approval or for constructive criticism that will be helpful in making any necessary adjustments. The regular procedure of the division assures continuous servicing of each Commercial Standard through review and revision whenever, in the opinion of the industry, changing conditions warrant such action.

SIMPLIFIED PRACTICE RECOMMENDATIONS

Under a similar procedure the Commodity Standards Division cooperates with industries in the establishment of Simplified Practice Recommendations. Their purpose is to eliminate avoidable waste through the establishment of standards of practice for sizes, dimensions, varieties, or other characteristics of specific products; to simplify packaging practices; and to establish simplified methods of performing specific tasks.

Heavy-Duty Alpha-Cellulose-Filled Melamine Tableware

[Effective From December 15, 1950]

1. PURPOSE

1.1 The purpose of this commercial standard is to foster maintenance of the quality of heavy-duty alpha-cellulose-filled melamine tableware, and to provide a nationally recognized specification for the information of producers, distributors, and users.

2. SCOPE

2.1 This commercial standard covers chemical and physical properties and methods of test for heavy-duty tableware molded from alpha-cellulose-filled melamine materials. The materials used are composed of melamine-formaldehyde resin combined with alpha-cellulose as the filler. An identifying hallmark and recommended statement of compliance are included.

3. REQUIREMENTS

3.1 *Thickness.*—Tableware conforming to this commercial standard shall have a thickness of not less than 0.100 inch over not less than 90 percent of the surface area, and the remainder shall not be less than 0.090 inch in thickness.

3.2 *Finish.*—The surface of all tableware shall have a high luster produced by molding, and not by the application of finish or protective coating or lacquer, or by the use of other adulterants. Flash or parting lines only shall be buffed to a high polish.

3.3 *Resistance to boiling sulfuric-acid solution.*—When tested in accordance with paragraph 4.2, tableware shall show no chalking and/or loss of gloss that is readily perceptible without close examination.

3.4 *Resistance to boiling water.*—When tested in accordance with paragraph 4.3, the tableware shall not develop cracks, or show surface chalking or any other defects that might impair the serviceability or appearance of the tableware.

3.5 *Resistance to dry heat.*—When tested in accordance with paragraph 4.4, the tableware shall show no cracks.

4. METHODS OF TEST

4.1 The methods of test are especially designed so that they can be conducted by purchasers, distributors, or molders without the use of costly equipment, and by personnel that need not be specially trained. Meeting these tests is evidence of proper molding.

4.1.1 Five specimens chosen at random shall be tested to determine conformance of tableware with each of the requirements of section 3. If one of the five specimens fails to meet the requirements of a given test, five additional specimens shall be subjected to that test, all of which shall be required to pass the test in order to indicate conformance of the tableware with this commercial standard. If more than one of the original five specimens for a given test fails, the tableware shall be reported as failing to conform with this commercial standard.

4.2 *Sulfuric acid test.*

4.2.1 *Materials:*

- (a) Aqueous solution of sulfuric acid 0.8 percent by weight. This solution can be obtained from a local druggist or chemical supply house.
- (b) Porcelain-enameled or stainless-steel pail, with cover, about 2- to 3-quart capacity (2000 to 3000 ml). Enameled ware must not be used if the inside surface is chipped, exposing bare metal.
- (c) Heater, preferably a gas burner of about 4 to 5 inches in diameter. In any event, it should have sufficient capacity to keep the acid solution boiling fairly vigorously.

4.2.2 *Procedure.*—Five untested specimens shall be used for this test. From the molding to be tested, cut a cross-section strip about 3 inches wide, if a plate, dish, or saucer is being tested. If testing a cup, cut a section of about one-half of the molded part, taking for the test that part which includes the handle. The entire piece of tableware may be used if it is desired not to destroy it by cutting.

Heat to boiling a fresh portion of acid solution, keeping the container covered. Immerse the test piece(s) and re-cover the vessel. Keep boiling. Remove test piece(s) after 10 minutes, ± 0.5 minute, rinse in cold water, and dry. Inspect for conformance with paragraph 3.3.

4.2.3 *Precautions.*

4.2.3.1 The acid solution is corrosive, and care should be taken that it is not splashed on one's person or clothing, or about the premises.

4.2.3.2 Use fresh acid solution for each test run.

4.2.3.3 The solution must be kept boiling during the 10 minutes of the test. If too many test pieces are put in at once, the solution will be cooled to such an extent that it will stop boiling, thus endangering the accuracy of the test. By trial and error, one can determine the maximum number of parts which can be properly tested at one time.

4.2.3.4 Test pieces can be attached to fairly heavy cord or string, and be removed by this means when the test is completed.

4.2.3.5 Test pieces should be kept separated during boiling so that the acid bath has free access to all surfaces.

4.2.3.6 Dispose of waste acid solution by allowing it to cool, then flushing it down the toilet, using plenty of water.

4.3 *Resistance to boiling water.*—Five untested specimens shall be used for this test. Each sample of tableware shall be placed in boiling water for 30 minutes, removed, and allowed to stand for 1 hour at room temperature. This cycle shall be immediately repeated three times to give a total of four such cycles. The tableware shall be allowed to stand for 48 hours in air at room temperature. In cases of

dispute, a temperature of $23^{\circ} \pm 1.1^{\circ} \text{C}$ ($73.5^{\circ} \pm 2^{\circ} \text{F}$), and a relative humidity of 50 percent ± 4 percent shall be maintained. Inspect the tableware for conformance with paragraph 3.4.

4.4 *Resistance to dry heat.*—Five untested specimens shall be used for this test. Place the tableware in a circulating-air oven for 8 hours at 170°F . Cool to room temperature, and inspect for conformance with paragraph 3.5.

5. MARKING AND IDENTIFICATION

5.1 *Hallmark.*—Pieces of heavy-duty alpha-cellulose-filled melamine tableware may carry the hallmark shown in figure 1, which shall constitute the manufacturer's declaration of compliance with this commercial standard.



FIGURE 1. *Enlarged reproduction of hallmark.*

5.2 *Marking.*—In order that purchasers may be assured that pieces of heavy-duty alpha-cellulose-filled melamine tableware purchased actually comply with all requirements of this commercial standard, it is recommended that manufacturers include the following statement in conjunction with their name and address on labels, invoices, sales literature, etc.:

This (these) article(s) of heavy-duty alpha-cellulose-filled melamine tableware complies (comply) with Commercial Standard CS173-50, as developed by the trade under the procedure of the Commodity Standards Division, and issued by the U. S. Department of Commerce.

5.3 When available space on labels is insufficient for the full statement in legible type, an abbreviated statement, as follows, is recommended:

Complies with CS173-50, as developed by the trade, and issued by the U. S. Department of Commerce.

6. EFFECTIVE DATE

6.1 Having been passed through the regular procedure of the Commodity Standards Division, and approved by the acceptors herein-after listed, this commercial standard was issued by the United States Department of Commerce, effective from December 15, 1950.

HISTORY OF PROJECT

On April 26, 1949, the Society of the Plastics Industry, Inc., requested the cooperation of the National Bureau of Standards in the establishment of a commercial standard for heavy-duty alpha-cellulose-filled melamine tableware.

Following receipt of this request by the Bureau, copies of a proposed commercial standard for heavy-duty alpha-cellulose-filled melamine tableware, endorsed by the proponent organization, were circulated to selected representatives of manufacturers, distributors, purchasers, testing laboratories, and Government agencies for advance comment. The specification was adjusted in accordance with majority viewpoint as indicated by the comment.

With the unqualified endorsement of a number of interested organizations, the recommended commercial standard was submitted to the trade for written acceptance on September 18, 1950. Having received acceptances in writing estimated to represent a satisfactory majority, announcement was issued on November 15, 1950, that the standard would become effective for new production on December 15, 1950.

Project Manager: F. W. Reynolds, assisted by H. A. Bonnet, Commodity Standards Division, Office of Industry and Commerce.

Technical Advisers: Dr. G. M. Kline and F. W. Reinhart, Organic and Fibrous Materials Division, National Bureau of Standards.

STANDING COMMITTEE

The following individuals comprise the membership of the standing committee, which is to review, prior to circulation for acceptance, revisions proposed to keep the standard abreast of progress. Comment concerning the standard and suggestions for revision may be addressed to any member of the committee or to the Commodity Standards Division, Office of Industry and Commerce, U. S. Department of Commerce, which acts as secretary for the committee.

CHARLES H. FRANTZ, Plastics Manufacturing Co., 825 Trunk Avenue, Dallas 10, Tex. (chairman).

A. L. ALVES, The Watertown Manufacturing Co., 100 Echo Lake Road, Watertown, Conn.

GEORGE K. SCRIBNER, Boonton Molding Co., Boonton, N. J.

GEORGE V. GOULDER, International Molded Plastics, Inc., 4384 West Thirty-fifth Street, Cleveland 9, Ohio.

LLOYD T. MOORE, Applied Plastics Division, Keystone Brass Works, Inc., 1103 West Twelfth Street, Erie, Pa.

R. H. CUNNINGHAM, Hemco Plastics Division, The Bryant Electric Co., Bridgeport 2, Conn.

WILLIAM H. MACHALE, American Cyanamid Co., 30 Rockefeller Plaza, New York, N. Y.

M. H. BIGELOW, Plaskon Division, Libbey-Owens-Ford Glass Co., 2112 Sylvan Avenue, Toledo 6, Ohio.

PARKER D. PERRY, Parker D. Perry, Inc., 729 Boylston Street, Boston 16, Mass.

GEORGE E. WEIGL, George E. Weigl Co., 230 Fifth Avenue, New York, N. Y.

ALTA ATKINSON, Teachers College, Columbia University, New York, N. Y. (representing American Dietetic Association).

J. S. FASSETT, Service Department, American Hotel Association, 221 West Fifty-seventh Street, New York, N. Y.

FRANKLIN D. CARR, Waukesha Memorial Hospital, Waukesha, Wis., Leonard P. Goudy, 18 East Division Street, Chicago 10, Ill. (alternate), (representing American Hospital Association).

ACCEPTANCE OF COMMERCIAL STANDARD

If acceptance has not previously been filed, this sheet properly filled in, signed, and returned will provide for the recording of your organization as an acceptor of this commercial standard.

Date-----

Commodity Standards Division,
Office of Industry and Commerce,
U. S. Department of Commerce,
Washington 25, D. C.

Gentlemen:

We believe that the Commercial Standard 173-50 constitutes a useful standard of practice, and we individually plan to utilize it as far as practicable in the

Production¹ distribution¹ purchase¹ testing¹

of heavy-duty alpha-cellulose-filled melamine tableware. We reserve the right to depart from it as we deem advisable.

We understand, of course, that only those articles which actually comply with the standard in all respects can be identified or labeled as conforming thereto.

Signature of authorized officer-----
(In ink)

(Kindly typewrite or print the following lines)

Name and title of above officer-----

Organization-----
(Fill in exactly as it should be listed)

Street address-----

City, zone, and State-----

¹ Underscore which one. Please see that separate acceptances are filed for all subsidiary companies and affiliates which should be listed separately as acceptors. In the case of related interests, trade associations, trade papers, etc., desiring to record their general support, the words "General support" should be added after the signature.

(Cut on this line)

TO THE ACCEPTOR

The following statements answer the usual questions arising in connection with the acceptance and its significance:

1. *Enforcement.*—Commercial standards are commodity specifications voluntarily established by mutual consent of those concerned. They present a common basis of understanding between the producer, distributor, and consumer and should not be confused with any plan of governmental regulation or control. The United States Department of Commerce has no regulatory power in the enforcement of their provisions, but since they represent the will of the interested groups as a whole, their provisions through usage soon become established as trade customs, and are made effective through incorporation into sales contracts by means of labels, invoices, and the like.

2. *The acceptor's responsibility.*—The purpose of commercial standards is to establish, for specific commodities, nationally recognized grades or consumer criteria, and the benefits therefrom will be measurable in direct proportion to their general recognition and actual use. Instances will occur when it may be necessary to deviate from the standard and the signing of an acceptance does not preclude such departures; however, such signature indicates an intention to follow the commercial standard where practicable in the production, distribution, or consumption of the article in question.

3. *The Department's responsibility.*—The major function performed by the Department of Commerce in the voluntary establishment of commercial standards on a Nation-wide basis is fourfold: first, to act as an unbiased coordinator to bring all interested parties together for the mutually satisfactory adjustment of trade standards; second, to supply such assistance and advice as past experience with similar programs may suggest; third, to canvass and record the extent of acceptance and adherence to the standard on the part of producers, distributors, and users; and fourth, after acceptance, to publish and promulgate the standard for the information and guidance of buyers and sellers of the commodity.

4. *Announcement and promulgation.*—When the standard has been endorsed by a satisfactory majority of production or consumption in the absence of active valid opposition, the success of the project is announced. If, however, in the opinion of the standing committee or of the Department of Commerce, the support of any standard is inadequate, the right is reserved to withhold promulgation and publication.

ACCEPTORS

The organizations listed below have individually accepted this standard for use as far as practicable in the production, distribution, testing, purchase, or use of heavy-duty alpha-cellulose-filled melamine tableware. In accepting the standard they reserved the right to depart from it as they individually deem advisable. It is expected that articles which actually comply with the requirements of this standard in all respects will be regularly identified or labeled as conforming thereto, and that purchasers will require such specific evidence of conformity.

ASSOCIATIONS

(General Support)

American Hotel Association, New York, N. Y.
Society of the Plastics Industry, Inc., New York, N. Y.

FIRMS, HOSPITALS, AND OTHER INTERESTS

Albuquerque Indian Sanatorium, Albuquerque, N. Mex.
American Cyanamid Co., Calco Chemical Division, Bound Brook, N. J.
American Cyanamid Co., New York, N. Y. (General support.)
American Insulator Corp., New Freedom, Pa.
Applied Plastics Division, Keystone Brass Works, Inc., Erie, Pa.
Arkansas Baptist Hospital, Little Rock, Ark.
Ball Memorial Hospital, Muncie, Ind.
Bayamon District Hospital, Bayamon, Puerto Rico.
Baylor Hospital, Dallas, Tex.
Beloit Municipal Hospital, Beloit, Wis.
Beth Israel Hospital, Boston, Mass.
Bethesda Hospital, Cincinnati, Ohio
Blodgett Memorial Hospital, Grand Rapids, Mich.
Bolta Co., The, Lawrence, Mass.
Boonton Molding Co., Boonton, N. J.
Boulder (Colorado) Sanitarium & Hospital, Boulder, Colo.
Brooklyn Hospital, The, Brooklyn, N. Y.
Bryant Electric Co., The, Hemco Plastics Division, Bridgeport, Conn.
Bryn Mawr Hospital, The, Bryn Mawr, Pa.
Buffalo General Hospital, Buffalo, N. Y.
Burlington Hospital, Burlington, Iowa
Butterworth Hospital, Grand Rapids, Mich.
California Hospital, The, Los Angeles, Calif.
Central Maine Sanatorium, Fairfield, Maine.
Central State Hospital, Petersburg, Va.
Charles A. Dean Memorial Hospital, Greenville Junction, Maine.
Chestnut Hill Hospital, Philadelphia, Pa.
Chicago, City of, Bureau of Lunch Rooms, Board of Education, Chicago, Ill.
Children's Convalescent Home, Cincinnati, Ohio
Children's Hospital, The, Washington, D. C.
Children's Hospital of Michigan, Detroit, Mich.
Church Home and Hospital, Baltimore, Md.
Cincinnati, City of, Department of Purchasing, Cincinnati, Ohio
Citizens General Hospital, New Kensington, Pa.
City Memorial Hospital, Winston-Salem, N. C.
Colorado, University of, Department of Medicine, Denver, Colo.
Community General Hospital, Reading, Pa.
Community Hospital, San Mateo, Calif.
Community Hospital, The, Berea, Ohio

Crouse-Irving Hospital, Syracuse, N. Y.
Dayton State Hospital, Dayton, Ohio
Delaware Hospital, The, Inc., Wilmington, Del.
Denver Bureau of Health and Hospitals, Denver, Colo.
Detroit Tuberculosis Sanatorium, Detroit, Mich.
Devine Foods, Inc., Chicago, Ill.
DuBois Co., The, Cincinnati, Ohio
Dura-Ware, Beverly, N. J.
Easton Hospital, Easton, Pa.
Edgewater Hospital, Chicago, Ill.
Ellis Hospital, Schenectady, N. Y.
Evanston Hospital Association, Evanston, Ill.
Fairview Hospital, Minneapolis, Minn.
Genesee Hospital, The, Rochester, N. Y.
Germantown Hospital, Philadelphia, Pa.
Glens Falls Hospital, Glens Falls, N. Y.
Grace Hospital, Cleveland, Ohio
Grace Hospital, The, Detroit, Mich.
Grady Memorial Hospital, Atlanta, Ga.
Grafton State Hospital, North Grafton, Mass.
Grandview Hospital, LaCrosse, Wis.
Grant Hospital, Columbus, Ohio
Hackensack Hospital Association, Hackensack, N. J.
Hahnemann Hospital, Scranton, Pa.
Hamot Hospital, Erie, Pa.
Harlem Valley State Hospital, Wingdale, N. Y.
Harper Hospital, The, Detroit, Mich.
Healthwin Hospital, South Bend, Ind.
Henry County Hospital, New Castle, Ind.
Henry Ford Hospital, Detroit, Mich.
Herrick Memorial Hospital, Berkeley, Calif.
Hillcrest Memorial Hospital, Tulsa, Okla.
Hospital for Children and Training School for Nurses, San Francisco, Calif.
Hospital of the Good Shepherd of Syracuse University, Syracuse, N. Y.
Huntington Memorial Hospital, Pasadena, Calif.
International Molded Plastics, Inc., Cleveland, Ohio
Iowa Methodist Hospital—Raymond Blank Memorial Hospital for Children, Des Moines, Iowa
J. J. McCook Memorial Hospital, Hartford, Conn.
Jefferson Hospital, Philadelphia, Pa.
Jewish Hospital, The, Cincinnati, Ohio
Jewish Memorial Hospital, New York, N. Y.
Kahler Corp., The, Rochester, Minn.
Kansas City, City of, Kansas City, Mo.
Kansas, University of, Medical Center, Kansas City, Kans.
Lake County Memorial Hospital, Painesville, Ohio.
Lankenau Hospital, The, Philadelphia, Pa.
Los Angeles, City of, Los Angeles, Calif.
Los Angeles County General Hospital, Los Angeles, Calif.
Lowell General Hospital, Lowell, Mass.

Lutheran Deaconess Hospital, Chicago, Ill.
 Maple Leaf Plastics Limited, Toronto, Ontario, Canada
 Mary Fletcher Hospital, Burlington, Vt.
 Meadowbrook Hospital, Hempstead, N. Y.
 Melrose Hospital Association, Melrose, Mass.
 Memorial Hospital, Philadelphia, Pa.
 Memorial Hospital, The, Pawtucket, R. I.
 Memorial Hospital of South Bend, South Bend, Ind.
 Mercy Hospital, Des Moines, Iowa
 Methodist Hospital of Gary, Inc., Gary, Ind.
 Michael Reese Hospital, Chicago, Ill.
 Milwaukee County Hospital, Milwaukee, Wis.
 Morristown Memorial Hospital, Morristown, N. J.
 Mound Park Hospital, St. Petersburg, Fla.
 Mount Sinai Hospital, The, New York, N. Y.
 Mountinside Hospital, Montclair, N. J.
 Nashville General Hospital, Nashville, Tenn.
 Nathan Littauer Hospital, Gloversville, N. Y.
 National Jewish Hospital at Denver, Denver, Colo.
 Neurological Hospital Association, Kansas City, Mo.
 New Haven Board of Education, New Haven, Conn.
 Newark City Hospital, Newark, N. J.
 Newark, City of, Division of Central Purchase, Newark, N. J.
 Nichols Plastic & Engineering Co., Los Angeles, Calif.
 Norfolk County Hospital, South Braintree, Mass.
 North Country Community Hospital, The, Glen Cove, N. Y.
 North Dakota State Tuberculosis Sanatorium, San Haven, N. Dak.
 Northern Industrial Chemical Co., South Boston, Mass.
 Norton Memorial Infirmary, Louisville, Ky.
 Oak Ridge Hospital, Inc., Oak Ridge, Tenn.
 Orange Memorial Hospital Unit of the Hospital Center at Orange, Orange, N. J.
 Oregon State Hospital, Salem, Oreg.
 Orthopedic Hospital, Lincoln, Nebr.
 Patzig Testing Laboratories, Des Moines, Iowa
 Penney, J. C., Co., Inc., New York, N. Y.
 Pennsylvania, Commonwealth of, Department of Property & Supplies, Harrisburg, Pa.
 Pennsylvania Department of Health, Tuberculosis Sanatorium No. 1, South Mountain, Pa.
 Perry, Parker D., Inc., Boston, Mass.
 Pima County Hospital, Tucson, Ariz.
 Plaskon Division, Libbey-Owens-Ford Glass Co., Toledo, Ohio
 Plastic Molders, Inc., Chicago, Ill.
 Plastics Manufacturing Co., Dallas, Tex.
 Presbyterian Hospital, Pittsburgh, Pa.
 Prolon Plastics—Division of Pro-phy-lactic Brush Co., Florence, Mass.
 Providence Lying-in Hospital, Providence, R. I.
 Reid Memorial Hospital, Richmond, Ind.
 Retreat State Hospital, Retreat, Pa.
 Richmond Memorial Hospital, Dreyfus Foundation, Prince Bay, Staten Island, N. Y.
 Rochester State Hospital, Rochester, N. Y.
 Rockland State Hospital, Orangeburg, N. Y.
 Roger Williams General Hospital, Providence, R. I.
 St. Agnes Hospital, Philadelphia, Pa.
 St. Francis Hospital, San Francisco, Calif.
 St. Francis Hospital, Colorado Springs, Colo.
 St. Francis Xavier Infirmary, Charleston, S. C.
 St. Joseph Hospital, South Bend, Ind.
 St. Joseph Hospital, Lexington, Ky.
 St. Joseph's Hospital, Philadelphia, Pa.
 St. Louis Children's Hospital, St. Louis, Mo.
 St. Luke's Hospital, Cedar Rapids, Iowa
 St. Luke's Hospital, Cleveland, Ohio
 St. Luke's Hospital, Davenport, Iowa
 St. Luke's Hospital, Jacksonville, Fla.
 St. Luke's Hospital, New Bedford, Mass.
 St. Luke's Hospital, Newburgh, N. Y.
 St. Mary's Hospital, Pierre, S. Dak.
 St. Mary's Hospital, Green Bay, Wis.
 St. Vincent's Hospital, Portland, Oreg.
 St. Vincent's Hospital of the City of New York, New York, N. Y.
 St. Vincent's Sanitarium, St. Louis, Mo.
 Samaritan Hospital, Troy, N. Y.
 San Bernardino County Hospital, San Bernardino, Calif.
 San Diego County Purchasing Department, San Diego, Calif.
 San Jose Hospital, San Jose, Calif.
 Santa Monica Hospital, The, Los Angeles, Calif.
 Shawnee Indian Sanatorium, Shawnee, Okla.
 Sheppard & Enoch Pratt Hospital, The, Towson, Md.
 South Carolina Sanatorium, State Park, S. C.
 South Shore Hospital, South Weymouth, Mass.
 Springfield Hospital, The, Springfield, Mass.
 State Sanatorium, Wallum Lake, R. I.
 Staten Island Hospital, The, Staten Island, N. Y.
 Sturdy Memorial Hospital, Attleboro, Mass.
 Sunny Acres Cuyahoga County T. B. Hospital, Cleveland, Ohio
 Swedish Hospital, The, Seattle, Wash.
 Temple University Hospital, Philadelphia, Pa.
 Uniontown Hospital, Uniontown, Pa.
 University Hospital, Augusta, Ga.
 Virginia, University of, Charlottesville, Va.
 Washington County Hospital, The, Hagerstown, Md.
 Washoe Medical Center, Reno, Nev.
 Watertown Manufacturing Co., The, Watertown, Conn.
 Watts Hospital, Durham, N. C.
 Wayne County General Hospital and Infirmary, Eloise, Mich.
 Weigl, George E., Co., New York, N. Y.
 Wesley Long Hospital, Inc., Greensboro, N. C.
 Wesley Memorial Hospital, Chicago, Ill.
 Winnebago State Hospital, Winnebago, Wis.
 Woman's Hospital, Pittsburgh, Pa.
 Woonsocket Hospital, Woonsocket, R. I.
 Wyoming County Community Hospital, Warsaw, N. Y.

UNITED STATES GOVERNMENT

Agriculture, U. S. Department of, Division of Purchase, Sales and Traffic, Washington, D. C.
 Army, Department of the, Standards Branch, Office of the Assistant Chief of Staff, Washington, D. C.