UNITED STATES DEPARTMENT OF COMMERCE

JESSE H. JONES, Secretary

NATIONAL BUREAU OF STANDARDS

LYMAN J. BRIGGS, Director

nal Bureau of Standards

AN 1 0 1944

TIRE REPAIRS-VULCANIZED

(Passenger, Truck, and Bus Tires)

Reference book not to be COMMERCIAL STANDARD CS110-43

Effective Date for New Production from August 20, 1943



A RECORDED VOLUNTARY STANDARD OF THE TRADE

UNITED STATES GOVERNMENT PRINTING OFFICE WASHINGTON: 1943

PROMULGATION

of

COMMERCIAL STANDARD CS110-43

for

TIRE REPAIRS—VULCANIZED

(Passenger, Truck, and Bus Tires)

On October 15, 1942, at the instance of the National Association of Independent Tire Dealers, a conference of representative tire repair engineers adjusted and adopted a proposed commercial standard for tire repairs—vulcanized. The proposed standard was then submitted to a number of manufacturers, and to distributor and consumer organizations for comment, and on March 24, 1943, the adjusted draft was circulated to the entire trade for written acceptance. Those concerned have since accepted and approved the standard as shown herein for promulgation by the United States Department of Commerce, through the National Bureau of Standards.

The standard is effective for new production from August 20, 1943.

Promulgation recommended.

I. J. Fairchild, Chief, Division of Trade Standards.

Promulgated.

Lyman J. Briggs, Director, National Bureau of Standards.

Promulgation approved.

Jesse H. Jones, Secretary of Commerce.

TIRE REPAIRS—VULCANIZED

(Passenger, Truck, and Bus Tires)

COMMERCIAL STANDARD CS110-43

PURPOSE

1. The purpose of this commercial standard is to provide recognized specifications for the repairing of passenger, truck, and bus tires that have sustained an injury but still have many miles of road service left; to bring about a better understanding between the user and the tire repair shop; to give the user confidence in the quality of the workmanship and methods used by the tire repair shop; to guarantee the quality of the workmanship; and to keep the tire in satisfactory condition for road service for the maximum time consistent with safety.

2. During the present war emergency, nothing in these specifications shall be construed to obstruct or interfere with the repairing of tires submitted for repairing under the rules of the Federal Government agencies empowered to regulate the tire industry as a war measure, when such tires do not meet the inspection requirements of this standard, except that vulcanized tire repairs that do not meet the requirements of this standard shall not be sold as complying with the standard.

SCOPE

3. This commercial standard covers general requirements for the inspection of the injury to the tire, the minimum acceptable condition of the tire, the method of repair for maximum service, and the recommended wording of a uniform guarantee label.

DEFINITION

4. For the purpose of this standard the term "tire repair" means the repair of an injury to the tire (passenger, truck, and bus tire) by vulcanization of new materials into the tire by one of the nationally recognized methods described herein.

REQUIREMENTS

5. Inspection of passenger, truck and bus tires.

5a. Inspection of the tire shall be made by a skilled operator. The tire shall be dismounted from the rim and put on a tire spreader that will open the tire wide enough between the beads for the operator to have a clear vision of the entire inside of the tire and of the tire injury.

5b. From this inspection, the operator shall determine if the tire is

repairable under the following conditions.

5c. The injured part of the tire shall not exceed one-half of the cross section in maximum dimension after skiving.

5d. There shall be no ply or tread separation exceeding the dimen-

sions established in paragraph 5c.

5e. There shall be no circumferential breaks in the cord body.

5f. Bead area must be sound with no broken wires.

5g. There shall be no radial or circumferential sidewall cracks which cannot be satisfactorily repaired.

6. Preparation of tire for repair.

6a. Entire tire shall be thoroughly dry.

6b. When the injury is in either the tread or sidewall, but not through the carcass, the injured part of the tread or sidewall shall be skived at a 45° angle until clean rubber is exposed. It shall then be rasped until the tread or sidewall is thoroughly roughened. The hole or injury shall then be well coated with a suitable vulcanizing cement ¹

and allowed to dry until tacky.

6c. Where the injury is a fabric break on the inside, with no cut or bruise in the tread or sidewall rubber, the injured fabric shall be skived until the hole is clean and the fabric is sound around it. It shall then be buffed for a sufficient distance around the hole to permit the new repair material to be placed on clean rubber and fabric. The buffing should be done with the brush rotating along the cord toward the injury to avoid loosening the cord ends. The cleaned area shall be coated with a suitable vulcanizing cement (see footnote 1) and allowed to dry until tacky.

6d. When the injury is through either the tread or sidewall and the carcass, the tire shall be prepared as described in paragraphs 6b and 6c.

6e. The cords in rayon tires originally are covered with a special coating to assure proper union when the tires are first cured. Therefore, when buffing the inside section of a rayon tire to be repaired, care should be taken not to remove this coating. Buff only enough to provide a rough surface over the area to receive the repair, without buffing down to the bare cords. Rayon tires should be cemented immediately after buffing.

7. Method of repair.

7a. After the tire has been prepared, the repair shall be built up according to the instructions in any one of the following manuals or others issued by a supplier of repair material and approved by the standing committee: Manual of Tire Repairing, fifth edition; Tire Repair and Retread Manual No. S, 4112; and Tire Repair and Conservation Manual. These manuals may be obtained from suppliers of repair material.²

8. Curing equipment.—Curing equipment shall have uniform temperature characteristics and positive temperature control. Molds shall be provided with thermometers accurate to within ±2°F. They shall be so designed as to cure repairs in tires without damaging distortion.

9. Curing temperature.—Curing temperature, time, and pressure shall follow accurately mold and rubber manufacturers' directions. A correlation between the curing characteristics of the repair materials and the heating characteristics of the mold is necessary.

²A list of repair material manufacturers who have agreed to supply one of these manuals may be obtained from the Division of Trade Standards, National Bureau of Standards, Washington, D. C.

¹ The cement, unless otherwise specified by Government restrictions, shall be of the quality purchased by the U. S. Army, as follows: The cement shall contain not less than 0.55 pound of crude rubber per gallon of cement and shall contain no reclaim.

GUARANTEE LABEL

10. Repairs guaranteed to be in conformance with this commercial standard shall be made only on tires which pass the inspection requirements. Such vulcanized repairs are guaranteed to prove satisfactory during the remaining life of the tread.

11. It is recommended that the following statement or its equiva-lent be included in contracts, invoices, advertising, and on labels or

tags attached to tires that have had vulcanized repairs.

---- guarantees that the vulcan-(tire repair shop) ized repair completed _. ____ in this ____ ___ tire, . (date) (make) (serial number) located approximately ____ inches to the _____ of the direction—right or left) of the serial number conforms to Commercial Standard CS110-43 as issued by the National Bureau of Standards.

EFFECTIVE DATE

The standard is effective for new production from August 20, 1943. 12. Figure 1 illustrates the use of an abbreviated guarantee statement on labels of the National Institute of Treading Standards, and adopted for its members' use.



FIGURE 1.—Guarantee label.

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 revisions, may be addressed to any member of the committee or to the Division of Trade Standards, National Bureau of Standards, which acts as secretary for the committee:

Repair Material Manufacturers:

R. E. Van Akin (chairman), Goodyear Tire & Rubber Co., Akron, Ohio. W. P. Seiberling, Seiberling Rubber Co., Akron, Ohio. Walter A. Krappe, The Norwalk Tire & Rubber Co., Norwalk, Conn. C. T. Jansen, Rubber Manufacturers Association, 444 Madison Ave., New York, N. Y.

Equipment Manufacturers:

J. C. Heintz, James C. Heintz & Co., 3738–46 W. 143d Street, Cleveland, Ohio. ED Glynn, Super Mold Corporation, Lodi, Calif.

Tire Repair Shops:

IRA SHULL, Shull & Phillips, 1251 E. 8th St., Los Angeles 12, Calif. STANLEY CARNELL, Carnell & Bradburn, 22d & Market Streets, Philadelphia, Pa. DEAN ZOOK, The Zook Tire Co., 1122 Broadway, Denver, Colo.

Consumer and General Interest Organizations:

Pennsylvania Ave., N. W., Washington, D. C.

W. A. Duvall, Greyhound Corporation, 2600 Board of Trade Building, Chicago, Ill. (Representing National Association of Motor Bus Operators).

LYNWOOD ELLIOTT, United Parcel Service, 2320 Walnut Street, Philadelphia, Pa.

(Representing National Association of Purchasing Agents.

Walter W. Belson, American Trucking Association, 1424 16th St., N. W.,

Washington, D. C. C. C. Simpson, National Association of Independent Tire Dealers Inc., 631

HISTORY OF PROJECT

On September 3, 1942, C. C. Simpson, Executive Vice President of the National Association of Independent Tire Dealers, Washington, D. C., expressed a desire for the cooperation of the National Bureau of Standards in the establishment of a commercial standard for tire repairs—vulcanized, (passenger, truck, and bus tires). This was followed by a written request from that organization on December 4, 1942. In the meantime, a proposed commercial standard was adjusted and adopted on October 15, 1942, at Akron, Ohio, by a conference of representative tire repair engineers, and a representative of the Rubber Manufacturers Association. The proposed commercial standard was circulated during the months of November and December to representative equipment manufacturers, repair material manufacturers, large tire repair shops, user associations, other interested associations, Government agencies, tire distributors, and tire manufacturers, for comment.

After some adjustments in harmony with that comment, the recommended commercial standard was circulated to all known interested organizations for acceptance on March 24, 1943, and July 20, 1943, the National Bureau of Standards announced that acceptance representing a satisfactory majority of the volume of business had been received. The commercial standard designated as CS110-43 became effective from August 20, 1943.

(Cut on this line)

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

Division of Trade St National Bureau of St Washington, D. C.			
Gentlemen:			
Having considered the statements on the reverse side of this sheet, we accept the Commercial Standard CS110-43 as our standard of practice in the			
Production ¹	Distribution ¹	Testing ¹	Use ¹
of tire repairs—vulcanized (passenger, truck, and bus tires). We will assist in securing its general recognition and use, and will cooperate with the standing committee to effect revisions of the standard when necessary.			
Signature of individual officer			
(Kindly typewrite or print the following lines)			
Name and title of above officer			
Organization			
City and State			
¹ Please designate which group you represent by drawing lines through the other three. Please file separate acceptances for all subsidiary companies and affiliates which should be listed separately as acceptors. In the case of related interests, trade papers, colleges, etc., desiring to record their general approval, the words "in principle" should be added after the signature.			
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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 the Department of Commerce, the support of any standard is inadequate, the right is reserved to withhold promulgation and

publication.

ACCEPTORS

The organizations and individuals listed below have accepted this specification as their standard of practice in the production and distribution of tire repairs, vulcanized. Such endorsement does not signify that they may not find it necessary to deviate from the standard, nor that producers so listed guarantee all of their products in this field to conform with the requirements of this standard. Therefore, specific evidence of quality certification should be obtained where required.

ASSOCIATIONS

Farm Bureau Cooperative Association, Inc., Columbus, Ohio.

Draymen's Association of Alameda

County, Oakland, Calif.
National Association of Independent
Tire Dealers, Inc., Washington, D. C. National Association of Motor Bus Operators, Washington, D. C.

FIRMS

A & B Sales Corporation, Hillside, N. J. A & E Tire Co., Decatur, Ill., and Mattoon, Ill.

A & G Jobbers, Washington, D. C. A to Z Tire Co., Cheyenne, Wyo. Abbott Stores, L. R., Otsego, Ohio. Abbott & Wright Tire & Treading Co.,

Inc., Elizabeth, N. J.

Abel, Jos. A., Rutland, Vt.

Acme Tire & Retreading Co., Tulsa, Okla.

Tire Treaders, Chattanooga, $_{
m Acme}$ Tenn.

Adams Tire & Battery Co., Quincy, Ill. Adams Tire Co., Shenandoah, Iowa. Adamson Tire Recapping Co., / Inc.,

Roanoke, Va. Addington Tire Co., Jimmy, Fresno,

Calif.

Air Cooled Tire Co., New York, N. Y. Aitken General Tire, Inc., Utica, N. Y. Akron Equipment Co., The, Akron, Ohio.

Albuquerque Tire Co., Albuquerque, N. Mex.

Alexander, Jerry, Los Angeles, Calif.

Alice Tire & Battery, Alice, Tex.
Allen Motor Co., Cedar Rapids, Iowa.
Allen Tire Co., Chester, Pa.
Allen Tire Recapping Service, Victoria,

Allied Tire & Battery Co., Chicago, Ill. Allison Tire Co., Nashville, Tenn. Al's Tire Service, Kingston, N. Y. Ambridge Tire Recapping Co., Am-

bridge, Pa.

American Tire Machinery Co., Los Angeles, Calif. American Tire Treading Co., Somerset,

American Tire & Vulcanizing Co., Billings, Mont.

Amslers Tire & Bike Shop, Goshen, Ind. Anchor Service Station, Dubois, Pa., and Aliquippa, Pa.

Anchor Tire & Battery Co., Pittsburgh, Pa.

Anderson Co., Peter, Lafayette, Ind.

Anderson Co., Peter, Lafayette, Ind.
Anderson Tire & Battery Service, La
Crosse, Wis.
Anderson Tire Co., Canton, Ill.
Anderson's Super Service, Niles, Mich.
Andy's Tire Co., Great Falls, Mont.
Anniston Auto Parts, Anniston, Ala.
Applan Tire Retreading & Vulcanizing
Co., Mansfield, Ohio.
Armor Tread Tire Corporation, Palti

Armor Tread Tire Corporation, Baltimore, Md.

Armstrong Rubber Co., The, West Haven, Conn. Aronson Tire Co., Inc., Worcester,

Mass.
Astoria Tire Co., The (Astoria Truck
Tire Co., Inc.), New York, N. Y.
Atco Tire Co., Lowell, Mass. (In prin-

ciple.) Athens Tire Retreading Co., Athens,

Ga.

Atlantic Refining Co., The, Philadelphia, Pa.

Atlas Tire Store, Shreveport, La. Auburn Tire Shop, Auburn, Wash. Augspurger Super Service, Sturgis, Mich.

Auto Hotel, Baton Rouge, La. Auto Top & Accessory Co., Richmond,

Va. B & A Oil & Tire Co., El Centro, Calif. B & A Tire Rebuild, Everett, Wash. B & J Tire Service, Louisville, Ky.

B & O Recap Shop, Marion, Ill. Bacon Vulcanizer Manufacturing Co., Oakland, Calif.

mento, Calif.

Baer Tire Service, Eddy, Danville, Ill. Badger Auto Service Co., Milwaukee,

Bailey, Inc., Salt Lake City, Utah. Bailey Bros. Tire Co., Los Angeles, Calif.

Baldwin Auto Service, Kansas City, Mo.

Baldwin Supply Co., Charleston, W. Va.

Balloon Tire Mould Co., Los Angeles, Calif.

Banks Tire Co., Jersey City, N. J. Bannock Motor Co., Pocatello, Idaho. Bargain Center Tire Co., Phoenix, Ariz. Barker, Rose & Kimball, Inc., Elmira, N. Y.

Barker Tire Co., Danville, Va. Barratt, Charles O., Corona, Calif. Barrett Tire Co., Larry, San Francisco, Calif.

Barron Tire Co., Bellingham, Wash. Barry's Tire & Service Station, Elmira, N. Y.

Barton Tire Rebuilders, E. E., Dillon, S. C.

Bay & O'Brien, Rice Lake, Wis. Beacon Oil Co., Miles City, Mont. Beasley, Fred R., Athens, Ohio. Beaver Valley Tire Service, West Bridgewater, Pa.

Becker's Vulcanizing Shop, St. Louis, Mo.

Beier's Tire Store, Sidney, Mont. Belleville Hawkinson Tread Service, Belleville, Ill.

Benedict Corporation, John N., Norwich, N. Y.
Benson, Robert F., San Jose, Calif.
Benson Tire Service, Benton Harbor, Mich.

Berg Tire Service, Phoenix, Ariz.
Bernard Tire Co., Manchester, N. H.
Bernatz Oil Co., Hamtilton, Mont.
Berry Tire Co., Chicago, Ill.
Bethlehem Tire Service, Bethlehem, Pa.

Better Tire Sales Co., Inc., The, Johnstown, Pa.

Bibbin's Automotive Service, Santa Cruz, Calif.

Biddle Purchasing Co., New York, N. Y. (In principle.) "Bill" Murray's Tire Service, Mount

Pleasant, Mich.

Billmeyer's, Pocatello, Idaho. Birch & Birch, Inc., Dover, N. J. Birdsall Tire Service, Hampton, Iowa. Birmingham, City of, Birmingham, Ala. Bishop Tire Co., Inc., Greenville, S. C. Black & White Service, Denver, Colo. Blackwood's, Ive., Raleigh, N. C. Blair Auto Parts, Inc., Jackson, Mich. Blairs Tire Shop, Centralia, Wash. Blaisdell Service Station, Rhinelander,

Wis.

Baer, McClintock & Wilkinson, Sacra- Blaustein's Tire Shop, Seattle, Wash. Bloxom Auto Supply Co., Mappsville, Va.

Blue Bonnet Motors, Abilene, Tex. "Bob" Rhodes Tires, Santa Ana, Calif. Boggs Oil Co., Sterling, Colo.

Bohnett, Lambie, Rogers, Inc., Chicago,

Ill. (In principle.) Borders, Lynn (Monroe Re Service), Monroe, Ga. Bowen & Fink, Holyoke, Mass. (Monroe Recapping

Bowerman Tire Shop, McAlester, Okla. Bowes "SEAL FAST" Corporation, Indianapolis, Ind.

Bowker-Hamblin-Malmouist. Inc.,

Worcester, Mass.
Boyles Tire Co., High Point, N. C.
Brandenberger, P. D., Atlantic City,

Brannen Tire Co., Jim, Eugene, Oreg. Breck's Tire Shop, Louisville, Ky. Brewer Tire Co., Inc., J. W., Ogden,

Utah. Bridge Tire & Supply Co., The, Paw-

tucket, R. I. Bridgeport General Tire Co., The.

Bridgeport, Conn. Bridges Tire Shop, George K., McKees

Rocks, Pa. Brigham Tire Shop, Brigham

Utah. Brillhart's Service, Ocean Park, Calif. Broadway Vulcanizing & Tire Co.,

Lawrence, Mass. Bronx General Tire Co., New York,

N.Y. Brooks Bros. & Smith, Meadville, Pa. Brown, Inc., H. Spencer, Salt Lake City, Utah.

Brown Hanselman Co., Hackensack, N. J.

Brown Oil & Supply Co., Parsons, Kans. Bruce & Moreman Tire Service, Victoria, Tex.

Brunner Tire Service, Bob, Los Angeles, Calif.

Buchanan Service, Dover, Del.

Burk Tire Service, Huntington Park, Calif.

Burner & Williams, Macomb, Ill. Burns Tire Service, Omaha, Nebr.

Buruss Tire Co., Staunton, Va.
Bussmann, A. E., Los Angeles, Calif.
C & E Tire Co., Altoona, Pa.
C & L Tire Retreading Corporation,

Roxbury, Mass. Calderone Super Service, Vandergrift,

Pa.

Caldwell Service, R. W., San Diego, Calif.

California Highway Patrol, Sacramento, Calif.

California Tire Co., Santa Barbara, Calif.

Callahan's, Allentown, Pa. Callaway, Jack (Tire Engineers, Inc.), Denver, Colo.

Callen Tire Sales, Davenport, Iowa.

Cal's Place, Salisbury, Md.

Calvin Tire Service of Winter Haven,

Winter Haven, Fla. Camden Storage Battery Co., Camden,

Camden Tire Co., Minneapolis, Minn. Canterbury Tire Co., Huntington, W.

Va.

Capitol Rubber & Tire Co., Denver,

Caram Manufacturing Co., Los Angeles, Calif.

Carlisle Tire & Rubber Co., Carlisle,

Carl's Tire Mart, Louisville, Ky.

Carlson & Simpson, San Diego, Calif. Tire Service, Breckenridge, Tex.

Carnell & Bradburn, Philadelphia, Pa. Carolina Rubber Co., Florence, S. C. Carpenter & Yon, Columbia, S. C. Carr Tire Shop, J. H., Mount Vernon,

Ill.

Carr-Woodall Tire Service, Inc., Rich-

mond, Va. Carroll's Watsonville Tire Co., Watsonville, Calif.

Carson's Tire Service, Hoquiam, Wash. Carter Tire & Service Co., Ralph, Stockton, Calif.

Carthey Petroleum Corporation, Davenport, Iowa. Cascade Rubber, Inc., Cuyahoga Falls,

Ohio.

Case Co., Inc., J. Harry, Port Jervis, N. Y.

Cass Garage, Inc., Athol, Mass. Cate-McLaurin, Inc., Columbia, S. C. Cates Recap & Vulcanizing, Grand

Island, Nebr.
Ceazan Co., J. N., Los Angeles, Calif.
Central Oil Co., Glasgow, Ky.

Central Recapping Service, Inc., Cleve-

land, Ohio. Central States Oil Co., Inc., Council

Bluffs, Iowa. Central Tire Co., Lansing, Mich. Central Tire Service, Alton, Ill. Central Tire Service, Oakland, Calif. Century Tire Co., Portland, Maine. Chabots Super Service, Portsmouth, Ohio.

Chambers, J. O., Murray, Ky. Champion Service Station, Thomas-

ville, N. C. Chase Manufacturing Co., Inc., St.

Louis, Mo. Chase & Teddy, Ltd., Oakland, Calif. Chase Tire Co., Salt Lake City, Utah. Chehalis Garage Tire Co., Chehalis, $\operatorname{Wash}.$

Chek-Chart Corporation, The, Chicago, (In principle.)

Chelsea Tire & Cycle Co., Chelsea, Chitwood & Study, San Pedro, Calif.

Christian Super Treads, Princeton, Ind. Cihak Tire Service Co., Milwaukee, Wis.

Cincinnati Tire Co., Cincinnati, Ohio. Cities Service Oil Co., Chicago, Ill., and New York, N. Y

City Hall Garage, Pacific Grove, Calif. City Ramp Garage, Inc., Spokane, Йash.

City Rubber Tire Works, Fitchburg, Mass.

City Service Station, Lincolnton, N. C.

City Tire Co., Atlanta, Ga. City Tire Co., Providence, R. I.

City Tire Co., Inc., Spartanburg, S. C. City Tire Service, Norwich, Conn. City Tire Service Co., Washington,

City T D. C.

Civic Center Tire Shop, San Francisco, Calif.

Clapy's Rubber Co., Redlands, Calif. Clark's Service Co., Inc., Muncie, Ind Cleaver & Brown Tire Co., Miami, Fla. Clover, Russ—Tires, Santa Monica, Calif.

Coast-to-Coast Stores, Central Organization, Inc., Minneapolis, Minn. Cochran & Celli (Tire Department),

Oakland, Calif.

Cochran & Nichols, Ontario, Calif. Cogdell Auto Supply Co., Fort Worth,

Tex. (In principle.)
Colonial Oil Co., Inc., Norfolk, Va.
Colony Stations, Inc., Bridgeport, Conn.
Colvin's Tire Service, Anacortes, Wash. Commercial Automotive Service, Seattle, Wash.

Commercial Recapping Corporation, Houston, Tex. Commercial Rubber Co., Los Angeles,

Calif. (In principle.)
Commercial Tire Co., Dallas, Tex.

Commercial Tire Service, Denver, Colo. Commercial Tire & Supply Co., Chicago, Ill.

Community Oil Co., Lawton, Okla. Community Service Stati Lebanon, Pittsburgh, Pa. Service Station, Mount

Community Tire Service, St. Louis, Mo. Condray's Easy Pay Tire Store, Oregon

City, Oreg. Conley Bros. Tire Recapping Service, Phoenix, Ariz.

Connally-Stephens Tire Co., Abilene, Tex.

Connecticut, State of, Purchasing Department, Hartford, Conn.

Consolidated Wagon & Machine Co., Idaho Falls, Idaho.

Continental Baking Co., New York, N. Y.

Cook, Max, Newark, N. J.

Cookies Tire Shop, Hannibal, Mo. Cooperative Seed & Farm Supply Service, Inc., Baltimore, Md.

Cope Bros., Massillon, Ohio.

Corduroy Rubber Co., Grand Rapids, Dice Tire Service, Crawfordsville, Ind. Mich.

Corey's Texaco Service, Ray, DeKalb, Ill.

Cotter Tire Co., Chas. F., Dayton, Ohio. Cowart Recapping Co., Augusta, Ga. Cox-Wellman, Inc., Oakland, Calif. Crawford Oil Co., Foy R., Columbia,

Mo.

Crenna Service Station, Ray L., Concord, Calif.

rescent Automotive Service, Everett, Wash. Crescent Inc.,

Crites Tire Co., Albany, Oreg. Crockett, C. W., The Tire Man, Pocomoke City, Md.

Cromer & Son, W. S., Fairfield, Iowa. Cross Roads Auto Service, Berlin, Md. Crowe Co., Johnny, San Francisco, Calif.

Crowell-Long Auto Co., Inc., Danville,

Cumings Bros., Flint, Mich.

Cummings Tire Co., Portland, Oreg. Cunningham Tire & Recap Service, Defiance, Ohio.

Curtis & Son, D. O., Marietta, Ohio. Custom Auto Stores, Point Pleasant, N. J.

Custom Tire Co., Billings, Mont.
Custom Tire Co., Bradley Beach, N. J.
Custom Tire Co., Oaklyn, N. J.
Dallas, City of, Dallas, Tex.
Daly Tire Service, Al, Detroit, Mich.
"Dan" The Tire Man, Battle Creek,

Mich.

Danbury Retread & Recapping Co.,

Danbury, Conn. Danielson Oil Co., Inc., Danielson,

Dave's Service Station, New London,

Davis Tire Shop, A. G., Clarksburg, W. Va.

Dawson Tire & Rubber Co., Los Angeles, Calif.

Dayton McClaren Rubber Co., San Francisco, Calif.

Dayton Rubber Manufacturing The, Dayton, Ohio.

De Soto Tire Co., Tampa, Fla. Dealers Retreading, Inc., Chicago, Ill. Dean's Tire Service, Louisville, Ky. Delaware State Highway Department,

Dover, Del. Dempsey & Sanders, Oakland, Calif. Dempster's General Tire Sales, Russ,

Middletown, Ohio. Denman Tire & Rubber Co., Warren,

Ohio.

Dennis & Jarvis Tire Co., Macon, Ga. Dennis & Rogers Tire Co., Aiken, S. C. Derrington Tire & Battery Co., Wm. O.,

Evansville, Ind. Dettmann Tire Battery Service, Green Bay, Wis. Dias, A. W., Auburn, Calif.

Dickel Distributing Co., Philadelphia.

Dick's Tire Service, Pasadena, Calif. Dils Motor Co., Parkersburg, W. Va. Direct Oil Service Corporation, Minneapolis, Minn.

Division Tire & Auto Parts, Inc., Buffalo, N. Y. Dixie Motor Coach Corporation, Dallas,

Dixie Tire Co., Miami, Fla. (In prin-

ciple.) Dix's Tire Service, Pottsville, Pa. Dodgeville Tire Shop, Dodgeville, Wis.

Dodson, Ltd., Los Angeles, Calif. Dollahon Tire Shop, Roswell, N. Mex. Dooley, Clay, Bloomington, Ill.

Doolittle, Franktion, Salem, Oreg.
Doolittle's Service Station, Tifton, Ga.
Tol Howard Tire Co., Colorado

Springs, Colo. Dowdell Tire Co., Chas., Los Angeles, Calif.

Downtown Tire Service, Pittsburgh, Pa.

Drake, Sid—Tires, Alton, Ill. Duckworth Tire Shop, Grants Pass, Oreg.

Duffy & Bessey, Philadelphia, Pa.
Duffy Tire Co., Des Moines, Iowa.
Duncum Tire Co., Homer, Brady, Tex.
Dunkin, Walter E., Three Rivers, Mich.
Dunlop Tire & Rubber Corporation,
Buffalo, N. Y.

Dunn Brothers, Verona, Pa.

Dunn & Seibert, Martinsburg, W. Va. (In principle.)

Dunn's Super Service, San Fernando, Calif.

Durham Tire Exchange, Durham, N. C. Dusty Rhodes Tire Service, Silver City, N. Mex.

E & P Tire Service, Hanford, Calif. Eagle Tire Co., New York, N. Y. Eagle Tire Service, Culver City, Calif. Earls Recapping Service, Spokane,

Wash.

Easy Pay Tire Store, Monroe, Ga. Echols Tire Service, Phoenix, Ariz. Eckles Tire Service, Lamar, Colo. Economy Gas & Oil Co., Wilkes-Barre,

Economy Motors, Inc., Duluth, Minn. Economy Recapping Co., Louisville,

Ky. Economy Retreading Service, Leavenworth, Kans.

Economy Tire & Battery Co., Salt Lake City, Utah.

Economy Tire & Motor Supply, Fairmont, Minn.

Economy Tire Service, Los Angeles, Calif.

Edelman, H. C., San Diego, Calif.

Eddy's Complete Service, Boone, Iowa. Freed, Inc., Paul, Waynesboro, Va. Edwards Tire Co., Madison, Wis. Egan Manufacturing Co., H. B., Mus-

kogee, Okla. Elder General Tire Co., Bill, Grand

Rapids, Mich. Elk Tire Co., Ponca City, Okla. Elyria City Motors, Inc., The, Elyria,

Ohio.

Emerson Tire Co., Miami, Fla. Empire State Tire Service, Glens Falls,

Empire Tire Co., Billings, Mont. Englert Tire & Rubber Co., Leavitts-

burg, Ohio. Enns Sales & Service, Reedley, Calif. Epperson's, Woodland, Calif. Estes-Lesem Tire Co., Cape Girardeau,

Mo. Esveld Tire Service, Caro, Mich. Ethridge Recapp. Tire Co., Sikeston,

Ethridge Tire Co., Glendale, Calif.

Evans Tire Co., Stephenville, Tex. Even-Cure Tire Rebuilding Corpora-

tion, Clifton, N. J.
Eversole Tire Co., Muskogee, Okla.
F & S Tire Co., Miami, Fla. Fansler's Super Service, Garden City,

Faris Tire Co., Adam, Spokane, Wash. Faust Tire Co., Dave, Alliance, Ohio. Fayette Tire & Rubber Co., Oak Hill, W. Va.

Fenstermacher's, Wilkes-Barre, Pa. Fent, John—Tires, Santa Maria, Calif. Fenton, Edgar E., Westfield, N. Y. Fichtners Garage, Medford, Oreg. Field & Lund, Oakland, Calif. Fields Tire Service, Inc., Camden, N. J. Fike Tire Service, Waynesboro, Pa. Finnie's Auto Parts, Orlando, Fla. Firestone Stores, Bakersfield, Calif.

Firestone Stores, Greensboro, N. C. Firestone Tire & Rubber Co., The, Akron, Ohio.

First Street Richfield Service Station, Banning, Calif. 555, Inc., Little Rock, Ark. Flaherty Tire Service, Los Angeles,

Fleissner Bros., Milwaukee, Wis.

Fletcher Tire Service, Inglewood, Calif. Fluelling One Stop Service, Plymouth,

Mich. Foogert Tire Service, Los Angeles, Calif.

Forbush Co., The, Grand Junction, Colo., and Pueblo, Colo. Fordham Tire Co., Bronx, N. Y. Ford's Auto Supply, Warsaw, Ind., and

La Porte, Ind. Foster Tire & Rubber Co., Chicago, Ill. Foulks Tire Co., Cleveland, Ohio. Fox Tire Co., Frank, Tacoma, Wash. Frazer Tire Service, Wm., East Brady, Pa.

Fry & Ramonda, San Francisco, Calif. Fry Springs Service Station, Charlottesville, Va.
Fullerton, Salty & Lucky, Oklahoma City, Okla.
Funke Bros. Tire Service, Burlingame,

Calif.
G & J Tire Service, Corvallis, Oreg.
G & M Tire Co., Memphis, Tenn.
Gallagher Tire Service, Jim Garton, Ohio

Gans Tire Salvage, Chelsea, Mass. Garlock Tire Service, Modesto, Calif. Garner Motor Sales Co., Garner, Iowa, Gates Rubber Co., The, Denver, Colo. (In principle.)

Geiselman, A. C., Clearwater, Fla. General Auto Supply Co., Schenectady,

General Tire Co., The, Indianapolis, Ind.

General Tire Co., Seattle, Wash. General Tire Co., Nashville, Tenn. General Tire Co. of Saint Louis, St. Louis, Mo. General Tire & Rubber Co., The,

Akron, Ohio. General Tire Service, Elyria, Ohio.

General Tire Service Co., Detroit, Mich. General Tire Service, Inc., Akron, Ohio. General Tire Service, Inc., Greensboro, N. C.

General Tire Service, Ltd., San Bernardino, Calif.

General Tire & Tread Service, Sunbury, Pa. Gibbs Tire Store, Springfield, Mo.

Gibson's Tire Shop, San Mateo, Calif. Gillen Tire Co., H. S., Long Beach, Calif.

Gil's Tire & Gas Service, Alpena, Mich. Gleeman, St. Paul, Minn.

Globe Tire Co., Los Angeles, Calif. Godfrey Tire Co., Greenville, S. C. Goodin-Wise, Inc., Portland, Oreg. Goodrich Co., The B. F., Akron, Ohio. Goodrich Tire Co., W. D., Spokane,

Wash. Goodyear Tire & Rubber Co., Inc., The, Akron, Ohio.

Gordon Tire Co., Orlando, Fla. Goss Co., The C. H., St. Johnsbury, Vt. Gosselin, Tony, Eureka, Calif. Gosser Tire Service, Vandergrift, Pa. Graham Tire Cap Service, Marshall-

town, Iowa.

Graham's Tire Service, Corona, Calif. Grand Traverse Auto Co., Traverse City, Mich.

Grant Cooperative Oil Co., Grant, Nebr. Grant Motor Co., St. Joseph, Mo. Great Gordon Tire & Battery Co., The,

E. Hartford, Conn. Green Tire Service, Topeka, Kans. Rubber Co., Greenfield, Greenfield

Mass.

Green's Service Station, W. E., Lewis- | Higginbotham-Pearlstone Hardware Co., burg, Tenn. Gressel Tire & Mat Works, Brunswick,

Ga.

Griffin, Laurence, St. Paul, Minn. Grimes Rubber Co., Dallas, Tex.

Grimshaw, Ray, Portland, Oreg. Grismer Tire Co., Dayton, Ohio. Gross Service & Supply Co., Barney,

Denver, Colo.

Grove, George W., Lewistown, Pa. Gunther & Wood, Santa Monica, Calif. H B Tire Service, Hermosa Beach, Calif. Tire & Hackett Battery Co.,

Angeles, Calif. Hackner's Tire Warehouse, Davenport,

Haden's Tire Service, Salisbury, N. C. Hailey Tire Co., Houston, Tex. Hall's Tire Service, Moberly, Mo. Hamberger, E. W., Long Beach, Calif. Hancock Co., George W., Sacramento,

Calif.

Hanly's, Don, Longview, Wash. Hanson Goodyear Service, Howard,

Beloit, Wis.
Harbor Tire Shop, Aberdeen, Wash.
Harlee Tire Co., Pittsburgh, Pa.
Harper Garage Co., Salem, Mass.

Harrisburg Tire Recapping Co., Harrisburg, Ill.

Harrison Oil Co., Quitman, Ga.
Harry's Tire Shop, Auburn, N. Y.
Hartford Tire Co., Inc., Hartford, Conn.
Hartman Bros., Inc., Montrose, Colo.
Hartman Tire Market, Spokane, Wash.
Hartman's, Danville, Va.

Hause & Duntley, Los Angeles, Calif. Vulcanizing Co., Charles Hawkeye City, Iowa.

Hawkins Tire & Battery Co., Dallas,

Hawkins Tire Service, Santa Maria, Calif.

Hawkins Tire & Service, Inc., Hattiesburg, Miss.

Hawkinson Tread Service, Mansfield,

Hayward Tire Co., Fond du Lac, Wis. Heer & Co., Ben, Los Angeles, Calif. (In principle.)

Heinrich Tire Service, Rochester, N. Y. Heintz & Co., James C., Cleveland,

Hellman Auto Supply, Gary, Ind. Helmandollar Oil Co., Trenton, Mo. Henderson Vulcanizing Co., Henderson, N. C.

Henne, Carl, Ashtabula, Ohio. Henry County Tire Store, New Castle, Ind .

Hensley Tire & Battery Co., Staunton,

Hi Mileage Treads, Inc., Salisbury, Md. Hiatt Tire Co., Inc., High Point, N. C. Hickey Tire Service, Tampa, Fla.

Dallas, Tex.

Highlandtown Vulcanizing Co., Baltimore, Md.

Hill Plaza Garage, Petaluma, Calif. Hitchcock Garage, Bedford, Ind. Hoag's Tire Service, Glens Falls, N. Y. Hodnett Tire Service, Allen, Wichita,

Kans. Hoffman's Rubber Works, South Bend,

Ind. Hoke Service Station, Wichita, Kans. Holloway Tire Recapping Co., Augusta, Ga.

Hollywood Tire Shop, Los Angeles, Calif.

Holm Service Station, Carl, Great Falls,

Mont. Holmes Tire & Supply Co., Madison,

Holz Tire & Recap Service, Lodi, Calif. Home Tire Store, Flint, Mich. Hoover Tire & Battery Co., Lloyd A.,

Ogden, Utah. Horn Co., The, Cleveland, Ohio. Houma Tire Service, Houma, La.

Howson's Tire Service, Art, cothe, Ohio.

Hub Tire & Retread Co., Detroit, Mich. Hultz General Tire Co., Don, Salinas, Calif.

Humphries Tire & Retreading Co., Fort Pierce, Fla.

Hurley Tire Co., Ray, Croswell, Mich. Hutchison, Joe E., Panama City, Fla. Idaho Falls Battery Co., Idaho Falls, Idaho.

Ideal Service Station, Shelby, N. C. Iles-McKinney & Wolf, Des Moines,

Illinois Farm Supply Co., Kingston Mines, Ill.

Interstate Electric Co., New Orleans, La. Irish, Inc., Leiland A., Los Angeles, Calif.

Iseman's O. K. Rubber Welders, Rogers,

Ivy Service Station, Gresham, Oreg. J&R Motor Supply Co., Chicago, Ill. "Jack" Lowes-Recapping, Oil City, Pa. Jack's Tire Exchange, Bergenfield, N. J. Jackson Tire Co., Bakersfield, Calif. Jake's Tire Exchange, Pottstown, Pa. Jamison Auto Supply, Cadiz, Ohio.

Jersey Tire Co., Inc., Perth Amboy, N. J.

Jimmy's Tire Shop & Garage, Portland,

Oreg.
Johns Tire Co., Houghton, Mich.
Johnson City Tire & Recapping Co., Johnson City, Tenn.

Johnson Freight Lines, Inc., Chatta-nooga, Tenn.
Johnson Motor Co., Jackson, Minn.
Johnson Tire Co., Evanston, Ill. Johnson Tire Co., Rhinelander, Wis. Johnson's Super Service, Culver, Ind.

Joliat Co., L. F., Detroit, Mich. Jones & Coutts, Pasadena, Calif. Jones, Ken—Fisk Tire Service, Worcester, Mass. Jones Motor Supply, Weirton, W. Va. Jones Tire Co., Scottsburg, Ind. Judd Auto Supply, Casper, Wyo. Jungkind, A., Brooklyn, N. Y.

K. H. Recapping Vulcanizing Palmyra, Mo.K & O Tire Service, Flushing, N. Y. Co., Kahn & Keville, San Francisco, Calif. Kalmes Tire Service, Winona, Minn. Kaufman Tire Sales Co., Toledo, Ohio. Kearns Storage Garage, Augusta, Ga. Keefer Stations, Williamsport, Pa. Keel & Co., Philadelphia, Pa. Keen, S. W., Frostproof, Fla. Keil Motor Co., Wilmington, Del. Kelleher's Tire & Battery Service,

Scranton, Pa.
Keller Vulc. Plant, Little Rock, Ark.
Keller's Tire Shop, Kelso, Wash.
Kelley Co., The John L., Decatur, Ill.
Kelly Service, Cadillac, Mich.
Kelly-Springfield Tire Co., The, Cumberland Md. berland, Md.

Kelly's Tire Service, Marshfield, Wis. Kemmer Tire Recapping Co., Casper,

Kemp, Clare, Burlingame, Calif. Kennedy Bros., Los Angeles, Calif. Kennedy Tire Co., Decatur, Ala. Kerr County Motor Co., Kerrville, Tex.

Kimball Tire Service, San Luis Obispo,

Kimmel Oil Co., Hiawatha, Kans. King Auto Thrift Stores & Modern Retreaders, Clarksville, Tenn. Kingham Tire & Oil Co., Cheyenne,

Wyo. Kingsley Wagner Motor Supply, Inc.,

Hutchinson, Kans. Kingston Tire Co., Kingston, Pa. Kingwood Auto Supply, Kingwood, W.

Va. Kirkwood Tire Co., Whittier, Calif. Knapp General Tire Service, Dayton, Ohio.

Knight Tire Co., Frank, Austin, Tex. Knoerle Tire Co., Inc., Indianapolis,

Knox Trutreds, White Plains, N. Y. Knudsen, Oscar L., Turlock, Calif. Kocher Bros. Tire Shop, Salt Lake

City, Utah. Kolb Tire Service, Madison, Ind. Kolman Tire Supply, Rock Springs,

Kramers Tire Shop, Burlingame, Kans. Kress Bros. Co., Pittsburgh, Pa. Kruse Hardware Co., The, Cincinnati,

Kulgren Super Service, Kingsburg, Calif. L & L Tire Co., Mesa, Ariz. La Beau Brothers, Kankakee, Ill.

La Marr's Tire Recapping & Vulcanizing Service, Arcadia, Calif. Lackawanna General Tire Co., West

Orange, N. J. LaFee Tire & Repair Co., Salt Lake

City, Utah. Lake Shore Tire & Rubber Co., Des

Moines, Iowa. Lamberth Tire Co., Jonesboro, Ark.

Laning Tire Service, San Francisco, Calif.

Larch Tire Service, Salt Lake City, Utah.

Latcham Tire Co., Denver, Colo. Latimer Tire Shop, Gainesville, Fla. Lavier's Tire Service, Deadwood, Dak.

Lavoie Auto Co., Dudley, Mass. Lee Tire & Rubber Co. of New York,

Inc., Conshohocken, Pa. Leesburg Tire & Battery Co., Leesburg, Fla.

Leeth Bros., Inc., Washington, D. C. Leffingwell, Inc., H. L., Fairfield, Conn. Lehigh Valley Tire Corporation, Allentown, Pa.

Lehman's Super Service Station, Wash-

ington, D. C. LeMoss-Smith Tire Co., Fresno, Calif. Lerman Tire Service, Milwaukee, Wis. Les' Tire Shop, Corunna, Mich. Leverenz Automotive Se vice, Danville,

Ill. Levinson Vulcanizing Works, Youngs-

town, Ohio. Levy, Sam E., Atlanta, Ga. Lew Bros.—Tire Shop, Baker, Oreg. Lewis Auto Supply & Service, Grand

Island, Nebr. Lexington Tire & Battery Co., St. Paul,

Light, Marvin, Santa Barbara, Calif. Lincoln & Co., Stamford, Conn. Lincoln Tire & Battery Co., Lincoln, Ill,

Linder Tire Co., Doug., Traverse City, Mich.

Link Motor Supply Co., Springfield Mo. Littleton, W. F., San Antonio, Tex. Live & Let Live Tire Co., Worcester, Mass.

Lockyear's Tire Shop, Evansville, Ind. Lodde Bros., Inc., Kansas City, Mo. Lodi Recap Tire Shop, Lodi, Calif.

Long Tire Co., Rochester, N. Y. Lott Brothers, Americus, Ga. Louisiana, State of, Department of

Highways, Baton Rouge, La. Louisiana Tire & Supply Co., Shreve-

port, La.
Love's Tire Shop, Jack, Shelby, Ohio.
Lowell Equipment Co., Lowell, Mass.
Loy's Tire Service, Jack, Monon, Ind.
Lundahl Tire & Retreading Co., Idaho Falls, Idaho.

Lutz Tire Sales, Cincinnati, Ohio. Lynchburg Ramp Garage Corporation,

Lynchburg, Va.

Mace Service, Inc., Terre Haute, Ind. Macks Tire Service, Uniontown, Pa. MacMillan & Cameron Co., Wilmington, N. C.

Maddalena Service, San Luis Obispo, Calif.

Mahone Tire Service, Parkersburg, W.

Major Motor Supply Co., Chicago, Ill. Major Tire & Rubber Co., Covina, Calif. Mangold's Service, Washington, Iowa. Manley Tire Service, Wilkes-Barre, Pa. Manly's Tire Service, Tucson, Ariz. Mann Garage, Paul, Dickinson, N. Dak. Mansfield Tire & Rubber Co., The, Mansfield, Ohio.

Markey Supply Co., Albany, Ga. Marsh-Schneider Tire Co., Hamilton,

Marshall, Roger S., Santa Monica, Calif. Martin Tire & Supply Co., Wichita,

Masek Auto Supply, Gering, Nebr. Mason Tire Co., Claude, Atlanta, Ga. Mason Tire Shop, Al, Warren, Ohio. Auto Service, Willimantic, Masse's Conn.

Master Auto Service Corporation, Nor-

folk, Va.

Master Tire Co., Des Moines, Iowa. Tire Service, Master Inc., Rapids, Mich.

Matthews Auto Service, Oroville, Calif. Matthews Tire & Tread Co., Jamestown, N. Y.

Mayfield Garage & Service Station,

Little Rock, Ark.
McAfee Tire Shop, Alamosa, Colo.
McCague, Carl E., Cleveland, Ohio. McCarthy & Sharkey, Newark, N. J. McClintock Vulcanizing & Retreading

Co., Chicago, Ill. McCornack Oil Co., St. Charles, Ill. McCreary Tire & Rubber Co., Indiana, Pa.

McDermott, Inc., Tom P., Tulsa, Okla.

McDowell Co., The Bert, Sacramento, Calif.

McKenna Tire Corporation, New York, N. Y.

McLaren-Corrigan, Inc., Milwaukee,

McNeil's Super Service, Venice, Calif. Meadows Tire Recapping Co., Selma, Ala.

Mears-Kane-Ofeldt, Inc., Philadelphia, Pa.

Medford Service Station, Medford, Oreg.

Melrose Tire & Rubber Co., Los Angeles, Calif.

Menefee Motor Co., Bessemer, Ala. Merchants Tire Co., Boston, Mass. Merchants Tire Co., St. Louis, Mo. Mercier Texaco Station, Zumbrota, Minn.

Merritt Tire Co., Rockford, Ill. Merz Co., Chas., Marysville, Calif. Miami Tire Retreading Co., Miami, Fla. Mid South Oil Co., Memphis, Tenn Mid-West Tire Exchange, Kansas City, Mo., and Des Moines, Iowa.

Middleton Tire Service, Plez, Inglewood,

Calif. Miles Rubber Co., J. J., Lynbrook, N. Y.

Miller-Hurst, Inc., Durham, N. C. Miller Manufacturing Corporation, C.

E., Anderson, Ind. Miller Motors, Mankato, Minn.

Miller & Pierson, Inc., Huntington, W.

Miller's Auto Supplies, Inc., Harrisburg, Pa. Miller's Master Tire Station, Nescopeck,

Milligan Bros., Prescott, Ariz. Minnesota Motor Co., Fergus Falls,

Minn. Mintz Tire Products, Sacramento, Calif.

Mission Tire & Rubber Co., San Francisco, Calif. Mission Vulcanizing & Tire Co., San

Francisco, Calif. Mississippi Tire Service, Inc., Jackson,

Miss. Mitchell's Recapping & Service Sta-

tion, Bedford, Ohio. Mobil Services, Bend, Oreg. Mock Bros., Inc., Ashland, Ky. Model Tire Co., Los Angeles, Calif. Model Tire Co., Inc., Indianapolis, Ind.

Modern Hi-Cap Tire Co., Louisville, Ky.

Modern Retreaders, Cookeville, Tenn. Modern Retreaders, Gadsden, Ala. Modern Retreaders Associate Store, Baton Rouge, La.

Modern Tire Co., Cambridge, Mass. Modern Tire Recapping Co., Elmwood, Conn.

Mohawk Rubber Co., The, Akron, Ohio.

Mohawk Service, Inc., Stamford, Conn. Mohlenkamp, Marvin J., Louisville,

Monroe Hardware Co., Monroe, N. C. Monroe Service, Inc., Al, Los Angeles, Calif.

Montgomery & Aldridge, Durham, N. C.

Montgomery Ward, Chicago, Ill.
Mondy Bros. Auto Co., Graham, Tex.
Mooney's Tire Shop & Auto Parts,
Appalachia, Va.
Moore Tire Service, McKenzie, Tenn.
Moore & Wallace Bosenning Co.

Moore & Wallace Recapping Troy, N. C. Morgan, Frank, Marysville, Calif. Wallace Recapping

Morrison Co., Stuart, Twin Falls, Idaho.

Morrison Tire Co., Philadelphia, Pa. Moser Tire Service, Marion, Ohio. Motor City Tire Service, Detroit, Mich. Motor Exchange Co., Tulsa, Okla. Motor Parts & Supply Co., Atlanta, Ga. Motor Supply Co., Enid, Okla.

Motor Tire Service, Boise, Idaho. Motor Tire Service, Dayton, Ohio. Motor Tire Service, Inc., Waterbury,

Conn.

Motor Tire & Rubber Co., Scottdale, Motor Tire & Supply, Wilmington,

Calif.

Mount Vernon Tire Surgery, Mount Vernon, Wash. Mueller Bros. Tire Co., Okmulgee,

Okla.

Mueller Co., O. J., Missoula, Mont. Muellers Automotive Service, Jersey City, N. J.

Munce & Son, R., Fresno, Calif.

Murphy's Tire Service, Tacoma, Wash. Murray-Fowler Tire Co., Redwood City, Calif.

Murray's Tire Service, Brooklyn, N. Y. Myers Motor Equipment Co., Kansas City, Mo.

National Automotive Fibres, Inc., Tren-

ton Division, Trenton, N. J. Neal's Tire Service, Lewisburg, W. Va. Neidhardt Bros.—Tires, Huntington

Park, Calif. Nelson-Scofield Tire Co., Great Falls,

Mont. Nelson Tire Service, Inc., La Crosse,

New Orleans, Inc., Better Business Bureau of, New Orleans, La. (In principle.)

Newman Brothers, Pasadena, Calif. Newsum General Tire Service, Mem-

phis, Tenn. Newth Rubber Co., Barrington, R. I. Nicols, Dean & Gregg, St. Paul, Minn. Niedringhaus Co., Pittsburgh, Pa.

Nielsen, Al, Sacramento, Calif. Nodine's, Oakland, Calif. Non-Skid Tire & Salvage Co., Brooklyn,

N. Y. Norwalk Tire & Rubber Co., The, Norwalk, Conn. Norwich Tire Renewing Service, Nor-

wich, Conn. Nossall's Tire Recapping Co.,

Hazleton, Pa. Nu-Tread Tire Co., Durham, N. C.

Nu Tread Tire Co., Inc., Charleston, W. Va. Nu-Tred Tire Co., Newport, Tenn. Nu-Tred Tire Co. of Wausau, Wausau,

Nunleys Tire Store, Coleman, Tex. O. K. Recapping & Vulcanizing Co., Pulaski, Tenn.

O. K. Rubber Welders, Boone, Iowa. O. K. Rubber Welders, Camas, Wash. O. K. Rubber Welders, Spanish Fork,

Utah.

O. K. Rubber Welders, Storm Lake. Iowa.

0. K. Rubber Welders, Tremonton, Utah.

O. K. Rubber Welders Tire Shop, Marshalltown, Iowa.

O'Dell's Tire Service, McMinnville, Oreg.

O'Hara & Casanova, Watertown, N. Y. Ohio Baconizing Co., Ironton, Ohio. Oildale Tire & Rubber Co., Bakersfield, Calif.

Older Tire Exchange, Medford, Oreg.

Oliver Bros. Co., Oil City, Pa. Oliver Tire & Rubber Co., Oakland,

Calif. (In principle.)
Oliver Treading & Vulcanizing Service,
Iola, Kans.
Opelle Tire Co., Los Angeles, Calif.
Osbon Tire & Supply Co., Aiken, S. C.
O'Toole General Tire Co., Baltimore, Md.

O'Toole Tire Service, Fredericksburg, Va.

Overby Retread Co., East St. Louis, Ill. Ozburn-Abston & Co., Memphis, Tenn. Packard Motor Co. of Johnstown, Johnstown, Pa.

Paducah Recapping Service, Paducah,

Paducah Tire & Battery Co., Paducah,

Ky.
Pahl Tire Co., Madison, Wis.
Palmer Battery & Tire Co., Macon, Ga.
Palmer Tire Shop, Los Angeles, Calif.
Pangborn Tire Co., Ottumwa, Iowa.

Parker & Parker, Georgetown, Ky. Pasadena Tire Exchange, Pasadena, Calif.

Paschal Tire Co., Roy B., Los Angeles, Calif.

Paul & Son Co., E. T., Columbus, Ohio. Paul's Tire Service, Somerton, Ohio.
Paul's Tire Shop, Washington, D. C.
Paver Super Tread Tire Co., Inc., New
York, N. Y.
Pearson & Larch, Inc., Idaho Falls,

Idaho.

Peerless Key-Imperial Manufacturing Co., Inc., Newark, N. J.

Pennsylvania Rubber Co., Inc., Jeannette, Pa.

Pennway Oil Co., Uniontown, Pa. Pep Boys-Manny, Moe & Jack, The, Philadelphia, Pa.

Pep Tire Service, Norfolk, Va. Perham, Inc., Charles B., Arlington,

Mass.

Perkins, Frank D., Portsmouth, N. H. Perkins Motor Co., La Grande, Oreg. Perlman, Inc., Alfred H., Chicago, Ill. Perry Bros., Sanford, N. C.

Peterson Tire Service, Rockford, Ill. Peterson Tire Service, Roy, Newport

News, Va.

Pharis Tire & Rubber Co., The, New-Richardson Tire Co., Long Beach, Calif. ark, Ohio.

Philips Tire Service, Opelika, Ala. Phillips-Hoffman Tire Co., Dothan,

Pickering's Service, San Diego, Calif. Pine Bluff Tire & Rubber Co., Pine

Bluff, Ark.
Pioneer Tire Service, Bremerton, Wash.
Pior Rubber Co., Tucumcari, N. Mex. Ploener Auto Salvage Co., Wilmington, Del.

Pofahl & Muhn, El Paso, Tex.

Pollock Tire Co., Lawrenceburg, Tenn. Pope Tire Co., Fresno, Calif.

Posey-Appleby Recapping Co., Tulsa,

Okla. Post Office Tire Service, Ocala, Fla. Potters Tire Hospital, Pontiac, Ill. Pound Tire Supply, Winchester, Ky. Powell's Service Station, Dudley, Huntsville, Ala.

Powell's Service Station, Bowling Green,

Prescott Tire & Wrecking Co., Prescott,

Ark. Price, E. O., Ukiah, Calif. Price Super Service, Cushing, Okla. Prices Tire Shop, Easton, Md. Prinz Tire Shop, Gus, St. Joseph, Mo. Prior Tire Co., Atlanta, Ga. Pruitt Tire Co., Jacksonville, Fla. Puerto Rico Nu-Treads, San Juan, P. R. Quality Tire Co., Johnson City, Tenn. Quality Tire Service, Buckhannon, Quality W. Va.

Quine, W. Bogan, Baton Rouge, La. Quint's Service Station, Galesburg, Ill. Quisenberry Super Service, Seymour, Tex.

Ragland, Potter & Co., Nashville,

Tenn. Rainbow Service Station, Everett, Wash. Ralph's Tire Shop, Green Bay, Wis.
Ramus Co., C. J., Napoleon, Ohio.
Rand & Co., C. D., Oakland, Calif.
Ratliff, Inc., J. E., Charleston, W. Va.
Rau & Dahl Tire Co., Willmar, Minn.
Raudenbush Motor Supply, Olympia, Wash.

Rawls Bros. Co., Lima, Ohio. Ray's Motor Service, Huntington, W.

Reading General Tire Co., Reading, Pa. Re-Capped Tires Co., Twin Falls, Idaho.

Red Dot Oil Co., Denver, Colo. Redwood Rubber Co., Santa Rosa, Calif.

Reed, Earl C. (General Tire Distributor), Sacramento, Calif.

Retread Tire Co., Dover, N. H. Retread Tire Shop, Eugene, Oreg. Rhoads, Jerome H., Lancaster, Pa. Rhodes, B. O., Silver City, N. Mex. Rhodes, Frank E., Renton, Wash. Richards, John, Wabash, Ind. Richmond Rubber Co., Inc., Richmond, Va.

Richter's Retread Service, Millersburg, Pa.

Riley, George W. (Vitacap Tire Service), Clarksburg, W. Va. Roanoke Vulcanizing Service, Roanoke,

Va. Robbins & Franke. Cliffside Park,

N. J.

Roberts, Sanford & Taylor Co., Sherman, Tex. Roberts Service, Oakland, Calif.

Robey Tire Service, Ann Arbor, Mich. Rochester Telephone Corporation, Rochester, N. Y. (In principle.)

Rogers Super Tread Tire Service, Yaki-

ma, Wash. Rogers Tire & Battery Co., Seattle, Wash.

Roosevelt Tire Service, Gastonia, N. C. Root Co., The H. G., Springfield, Ohio. Rosamond Tire Shop, Taylor, Hot

Springs, Ark. Rose Rebuilt Tire Co. (Division of Western States Rubber Co.), Los

Angeles, Calif.
Rose Tire Co., Inc., Indianapolis, Ind. Ross Independent Oil Co., Washington, Pa.

Rossi Service Station, Vineland, N. J. Royal Tire Co., Houston, Tex. Royal Tire Service. Inc. Co. Tire Service, Inc., Columbia,

S. C. Royal Tire Supply, Boise, Idaho. Roy's Auto Supply, Athens, Ohio. Rubber & Asbestos Corporation, Jersey

City, N. J. (In principle.)
Rubber Products Co., Pittsburgh, Pa.
Rubber Products Co., Wilmington, Calif.

Rubey, K. A., Dixon, Ill. Rude & Fuller, Los Angeles, Calif. Rudy & George, Inc., St. Louis, Mo. Rudy's Tire Service, King City, Calif. Ruebel's Distributors, St. Petersburg,

Rugby Sales Co., Forest Hills, N. Y. Russell & Bartlett Tire Co., Columbia,

Tenn. S & S Tire Exchange, San Saba, Tex. S & S Tire Service, Beckley, W. Va. Sacramento, Better Business Bureau of, Sacramento, Calif. (In principle.)

Saf-T-Cap Tire Service, Steelton, Pa. Safety Tire Co., Youngstown, Ohio. Safety Tire Recapping Co., Richmond, Va.

Safety Tire & Rubber Co., Inc., Long Island City, N. Y.

Safety Vulcanizer Co., South Orange, N. J. (In principle.) (In principle.)

Saindon's Tire Service, Bremerton, Wash.

St. Louis Service, Inc., Waterbury, Conn.

Sampson General Tire Co., Canton, Smith's Tire & Treading Co., Enid, Ohio.

Sam's Tire Shop, St. Joseph, Mo. Sanders Auto Supply, Helena, Ark. Sanders & Son, Bradenton, Fla. Santa Barbara Retreading Shop, Santa

Barbara, Calif.
Santa Fe Auto Service, Fullerton, Calif.
Santa Fe Tire Co., Santa Fe, N. Mex.
Santa Fe Tire & Rubber Co., Los Angeles, Calif.

Sapiro Auto Service, New Brunswick,

Sarrail Rubber Co., Los Angeles, Calif. Savenick's, Los Angeles, Calif. Scarborough Recapping, States ville,

Schlauder Tire Service, Downers Grove,

III.

Schultz's One Stop Service, Hazleton,

Schumann, George, Jacksonville, Fla. Schwab Tire Co., Sacramento, Calif. Schwalb Tire Co., Dover, N. J. Schwarz, Bert, New York, N. Y. principle.)

Scott Service Station, Greenville, N. C. Seattle Retread, Seattle, Wash.
Seekins Tire Shop, Jamestown, N. Dak.
Seiberling Rubber Co., Akron, Ohio.
Sellar's Tire Service, Palo Alto, Calif.
Semon Tire Service, Inc., Shreveport,

Serber Rubber Co., Inc., New York, N. Y. Service Oil Co., Inc., Portland, Maine.

Service Tire Co., Portland, Oreg. Service Tire & Repair Co., Beaumont, Tex. Sewards Service, Reading, Pa. Seymour Tire Service, Owensboro, Ky.

Shaler Co., The, Waupun, Wis.
Shapiro Auto Supply, Wilkes-Barre, Pa.
Shaub-Ellison Co., Tacoma, Wash.
Shaw Co., Victor, Charlotte, N. C. Shedd Auto Supply Co., Greeley, Colo.

Shelly's, Inc., Brownsville, Pa.
Sherman & Sons, Markus, Carnegie, Pa.
Sherry-Williams Tire Co., Schenectady,
N. Y.

Shipkey & Pearson, Inc., Anaheim, Calif., and Fullerton, Calif. Shockley & Hinchsliff Tire & Tread Co., Inc., Springfield, Mo. Shull & Phillips, Inc., Los Angeles,

Sinker Bros., Los Angeles, Calif. "Skid" Tire & Recapping Co., Stockton,

Calif. Slaughter Tire Co., Macon, Ga. Smallcomb Motor Co., Burlingame, Calif.

Smith Co., Inc., F. W., Detroit, Mich. Smith & Henderson, Vancouver, Wash. Smith & Higgins, Shelbyville, Ind. Smith's Tire & Service Co., Huntington,

W. Va.

Okla.

Snyder Tire Co., Winston-Salem, N. C. Socony-Vacuum Oil Co., Inc., New York, N. Y. Soper Bros., Chino, Calif. South East Tire Service, Chicago, Ill.

South Hill Motor Co., Inc., South Hill, Va.

Southern Tire Co., Florence, Ala., and Sheffield, Ala.

Southern Tire Recappers, Inc., Nashville, Tenn.

Southern Tire Recapping Co., Atlanta, Ga. Southwest Tire Co., Oklahoma City,

Okla. Southwestern Rubber Co., Los Angeles,

Calif.

Sowash Auto Service, Greensburg, Pa. Sparta Coal & Oil Co., Sparta, N. J. Speaker Corporation, J. W., Milwaukee, Wis.

Spears & Latimore, Chattanooga, Tenn. Speedway Tire & Auto Shop, Indianapolis, Ind.

Speirs Co., Inc., James E., Portland, Maine.

Stamper's J & J Tire Co., Marshfield, Oreg.

Standard Cycle & Auto Supply Co.,
The, Winsted, Conn.

Standard Oil Co. (Kentucky), Louisville, Ky. Standard Oil Co., The (Ohio), Cleve-

land, Ohio. Standard Service, Greenwood, Miss. Standard Service Tire Co., Inc., Seattle,

Wash.

Standard Tire Co., Dayton, Ohio. Standard Tire Co., Knoxville, Tenn. Standard Tire & Rubber Co., Providence, R. I.

Standard Tire Sales, Inc., Springfield,

Standard Tire Service, Pittsburgh, Pa. Standard Tire & Supply, Olney, Ill. Standard_Vulcanizing Works, Wilkes-

Barre, Pa. Stanfill-Deming Tire Co., Valdosta, Ga.

Stanley Tire Service, Crossville, Ill. Star, of Kentucky, Co., Louisville, Ky. State Hawkinson Tread Service, Hastings, Nebr.

Steiner Service Co., Uniontown, Pa. Steinla Motor & Transportation Co., Inc., Cumberland, Md.

Stenzel Co., H. O., Milwaukee, Wis., Stephens & Barrow, Inc., Cleveland Ohio.

Steppacher, A. H., (Scranton General Tire Co.), Scranton, Pa.

Sterbutzel Service, Connellsville, Pa. Sterling Tire Co., Kansas City, Mo. Sterling Tire Service, Brooklyn, N. Y. Stickney's, Scottsbluff, Nebr., Sidney, Nebr., and Sterling, Colo. Stidham Tire Co., Alfred, Washington,

D. C. Stone Tire Service Co., Los Angeles,

Calif.

Stowe Co., G. D., San Diego, Calif. Carl—Tire City, Straessle, Eureka, Calif.
Strain, Victor G., Chico, Calif.
Stripling's U. S. Tire Store, Orlando,

Stuart General Tires, Inc., San Jose, Calif.

Stuckman Tire Service, Bluefield, W. Va.

Suburban Tire Co., Memphis, Tenn. Success Tire Co., Inc., Salt Lake City, Utah.

Suiter Tire Co., Lloyd, Tacoma, Wash. Sunset Tire Vulcanizers, Hollywood, Calif.

Sunshine Bus Lines, Inc., Dallas, Tex. Super Mold Corporation of California,

Lodi, Calif. Super Recap Tire Co., Denver, Colo. Super Service Station, Omaha, Nebr. Super Tire Co., Johnstown, Pa. Super-Tread Tire Co., Louisville, Ky. Swift's Service, Memphis, Tenn. Sylva Tire Co., Sylva, N. C.
Taillon's Tire Shop, Haverhill, Mass.
Talarico Tire Co., Coraopolis, Pa.
Taylor Tire Co., Conway, Ark., and

Russellville, Ark.
Ted's Master Service, Salem, Mass.
Tenn. Tire Co., Nashville, Tenn.
Terman Tire & Supply Co., Chicago, Ill.
Texas Tire Treading Co., Houston, Tex.
Theakston Brog. Tire Co. Thackston Bros. Tire Co., Huntington, W. Va.

Theisen Tire & Truck Supply, Inc., St. Joseph, Mich

Thomas Tire & Battery Service, Worcester, Mass.

Thomas Tire Service, Roy, Wenatchee, Wash.

Thompson Gasoline Alleys, Inc., Racine, Wis.

Thompson Tire Co., San Francisco, Calif.

Thomsen Machine Co., Menominee, Mich.

300 Service Station, Wooster, Ohio.

Tifton Tire Co., Tifton, Ga.
Tipple's Service, Jack, Ferndale, Calif.
Tire Center, Inc., The, Wilmington,

Del. Tire Distributing Corporation, Long Island City, N. Y.

Tire Engineering Co., Inc., Holyoke, Mass.

Tire Engineering Service Co., Lansing, Mich.

Tire Exchange, Placerville, Calif. Tire Exchange Co., Pueblo, Colo. Tire-Fix Shop, Fredericksburg, Va. Tire Hospital, St. Paul, Minn. Tire Mart, The, Memphis, Tenn. Tire Rebuilders, Inc., Rockville Centre, N. Y.

Tire Rebuilders, Inc., Winston-Salem, N. C.

Tire Re-Cappers Co., Fort Dodge, Iowa. Tire Recapping Co., Fayetteville, N. C. Tire Recapping Corporation, Charlottesville, Va.

Tire Sales & Service Co., Inc., Raleigh, N. C.

Tire Salvage Co., Inc., Baltimore, Md. Tire Service Co., Indianapolis, Ind. Tire Service Co., Spokane, Wash. Tire Service Shop, Plainfield, N. J. Tire Shop, Sanger, Calif. Tires, Inc., St. Louis, Mo.

Tobey Tire Service, J. V., Oakland,

Calif. Tollefsen Motor Co., Kearney, Nebr. Topangaway Tire Co., Canoga Park,

Calif. Tower Service Co., San Diego, Calif. Town Tire Co., The, Trenton, N. J. Townsend Tire Co., Wallace, Mena,

Transportation Supply Co., Newark,

N. J Triangle Tire Co., Fort Scott, Kans. Tri-City Tire Co., Hermosa Beach, Calif.

Tri-County Recapping Co., Spruce Pine, N. C.

Tri County Tire Co., Rosemont, Pa. Tri County Tire Co., Rosemont, Pa. Trimble Corners, Indianapolis, Ind. Trimount Tire Sales Co., Quincy, Mass. Trutred Tire Co., Long Beach, N. Y. Trutred Tire Co., Miami, Fla. Tucker Service, Knoxville, Iowa. Tulare Auto Supply Co., Tulare, Calif. Tupelo Tire Co., Tupelo, Miss. Twin City Tire Store, Monroe, La. Tyresoles, Tampa, Fla. U. S. Quick Tire Service, Kansas City, Mo.

Mo. U. S. Tire & Auto Supply Co., Athens,

U. S. Tire Supply, Birmingham, Ala. U. S. Tire Supply Co., New Orleans, La. U. S. Tire Supply Co., Inc., New York,

Udick Service, Earl, Colorado Springs,

Colo. Ungar Supertread Tires, Scranton, Pa. Union Tire Co., Detroit, Mich.

United Auto Service, Aurora, Ill. United Cooperatives, Inc., Alliance,

Ohio.
United Parcel Service, Philadelphia, Pa.
United Service, Long Beach, Calif.
United States Rubber Co., New York,

United Tire Co., San Francisco, Calif. United Tire Recapping Co., Asheville, N. C

United Tire Service, Newark, N. J.

United Tire Stores, Trenton, N. J. Universal Tire & Battery Co., Lincoln, Nebr.

Utility Shop, Concord, Calif. Vail-Wilson, Gloversville, N. Y. Valla Tire Co., Gene, San Francisco, Calif.

Valley Motor Lines, Fresno, Calif. Valley Tire & Repair Co., Saginaw, Mich.

Van Leeuwen's General Tire Co., Inc., Brooklyn, N. Y. Van Tassell, Raymond, Indianapolis,

Ind., and Oakland, Calif. (In principle.)

Van Winkle Tire Sales, Evansville, Ind. Ventura, County of, Ventura, Calif. Victory Tire Service, Burbank, Calif.

Voit Rubber Corporation, W. J., Los

Angeles, Calif.
Volk's Tire Co., Trenton, N. J.

Vulcanizers Equipment & Supply Co., Omaha, Nebr.

Vulcanizers Supply, Oklahoma City, Okla.

Vulcanizers & Tire Supply Co., Pittsburgh, Pa. Waber Co., The, Chicago, Ill. Walker Service Station, A. M., Santa

Barbara, Calif.

Walker Service Station, S. L., Mt. Pleasant, Pa. Wally for Tires, Inc., Billings, Mont.,

and Great Falls, Mont.

Warren's Tire Service, Graham, N. C. Washburn Tire Recapping Plant, Rockland, Mass.

Watson Tire Jobbers, Saginaw, Mich. (In principle.)

Wayne Welding Co., Waynesboro, Va. Weaver-Patterson Tire Co., Seattle, Wash.

Webb & Webb Recappers, Louisville,

Ky. Webster Rubber Co., Warren, Ohio. Weiler Tire Service, Marshall, Minn. Weisenfreund Bros., Bronx, N. Y. Weldon Chevrolet Co., Enid, Okla.

Wells-Schill Tire Co., Inc., Granite

City, Ill. Wells Tire Co., Danville, Va. Welsh Tire Shop, Sanford, Fla.

Welsh The Shop, Sahlord, Fla.
Welter, Ralph J., New Haven, Conn.
Werner, Ted, Las Vegas, Nev.
West Side Tire Service, Cleveland, Ohio
Westchester General Tire Co., New
Rochelle, N. Y.
Western Auto Associate Store—O. K.
Rubber Welders, Mexico, Mo.

Western Auto Supply Co., Kansas City, Mo.

Western Tire Vulcanizing Co., Princeton, Ky.

Westland Oil Co., Minot, N. Dak.

Westside Auto Parts, San Luis Obispo

Whaley Tire Co., Fred, Santa Barbara Calif.

Wheeler Tire & Supply Co., Kirksville, Mo.

White Tire & Supply Co., Huntsville, Tex.

Whiting Oil Co., Clifton Forge, Va. Whitman Garage, Marcus, Walla Walla, Wash.

Wholesale Tire & Rubber Co., Indian-

apolis, Ind.
Wiant & Barr Hardware Co., Parkersburg, W. Va.
Wicker Repair Shop, Louisville, Ky.

Wiggins Tire Recapping Co., Albany, Ga.

Wilbanks Tire & Recapping Co., Montgomery, Ala.

Willapa Harbor Motor Co., Raymond, Wash.

Williams Tire & Rubber Co., Inc., Troy, N. Y.

Williamson Tire Co., Mack, Fort Worth, Tex.

Willumsen Tire Co., Los Angeles, Calif. Wilson & Greynolds Service Station, Loyall, Ky.

Wilson Recappers & Vulcanizers, Wil-

son, N. C. Wilson Tire Shop, C. T., Manhattan,

Winner Equipment Co., Denver, Colo. Wise Tire Co., Inglewood, Calif. Wolfe-Jones & Uhl, Tulare, Calif.

Wood, C. Louis, Fort Bragg, Calif. Woods Master Service, Lexington, Nebr. Woodward, Ben, Niagara Falls, N. Y.

Woodward, Ben, Nagara Fans, N. 1.
Woolach, Bros., Portland, Oreg.
Wyatt's, Eugene, Oreg.
Wyeth Hardware & Manufacturing
Co., St. Joseph, Mo.
Wynns Co., The, Los Angeles, Calif.
Xenia Vulcanizing Co., The, Xenia,

Ohio.

"Y" Tire Sales & Service, Inc., The, Alhambra, Calif.

Yoakum Co., E. B., Los Angeles, Calif. York Supply Co., The, Dayton, Ohio. Young, Jack R., Marysville, Calif. Zook Tire Co., The, Denver, Colo., and

Pueblo, Colo.

U. S. GOVERNMENT

Agriculture, Department of, Washington, D. C.
Office of Price Administration, Wash-

ington, D. C., and Baton Rouge, La. Office of Price Administration, Bismarck, N. Dak. (In principle.)

War Department, Washington, D. C. (In principle.)

COMMERCIAL STANDARDS

Item

CS No. 0-40. Commercial standards and their value to business (third edition).
Clinical thermometers (third edition).

2-30. Mopsticks.

3-40. Stoddard solvent (third edition). 4-29. Staple porcelain (all-clay) plumbing fixtures. 5-40. Pipe nipples; brass, copper, steel, and wrought iron.

6-31. Wrought-iron pipe nipples (second edition).
Superseded by CS5-40.
7-29. Standard weight malleable iron or steel screwed unions.

8-41. Gage blanks (third edition).

9-33. Builders' template hardware (second edition) 0-29. Brass pipe nipples. Superseded by CS5-40. 1-41. Moisture regains of cotton yarns (second

edition) 12-40. Fuel oils (fifth edition).

13-42. Dress patterns (third edition). 14-43. Boys' button-on waists, shirts, junior and sport shirts (made from woven fabrics) (third edition).

(E) 15-43.1 Men's pajamas (made from woven fabrics) (second edition).

16-29. Wall paper.

17-42. Diamond core drin fittings (third edition).

19–32. Flaintenance of this fitting (third edition).
19–32. Floundry patterns of wood (second edition).
20–42. Staple vitreous china plumbing fixtures (third

edition). 21-39. Interchangeable ground-glass joints, stop-

cocks, and stoppers (fourth edition).
22-40. Builders' hardware (nontemplate) edition).

23-30. Feldspar.

24-43. Screw threads and tap-drill sizes. 25-30. Special screw threads. Superseded by CS24-43. 26-30. Aromatic red cedar closet lining.

27-36. Mirrors (second edition).

28-32. Cotton fabric tents, tarpaulins, and covers. 29-31. Staple seats for water-closet bowls.

30-31. Colors for sanitary ware.

31-38. Wood shingles (fourth edition).

32-31. Cotton cloth for rubber and pyroxylin coating. 33-43. Knit underwear (exclusive of rayon) (second edition).

34-31. Bag, case, and strap leather.
35-42. Plywood (hardwood and eastern red cedar)
(second edition).

36-33. Fourdrinier wire cloth (second edition).

37–31. Steel bone plates and screws. 38–32. Hospital rubber sheeting.

39-37. Wool and part wool blankets (second edition).
(Withdrawn as commercial standard, July 14, 1941).

40-32. Surgeons' rubber gloves. 41-32. Surgeons' latex gloves.

42-43. Structural fiber insulating board (third edition).

43-32. Grading of sulphonated oils.

44-32. Apple wraps.

44-42. Apple wraps. 45-42. Douglas fir plywood (fifth edition). 46-40. Hosiery lengths and sizes (third edition).

47-34. Marking of gold-filled and rolled-gold-plate articles other than watchcases.

48-40. Domestic burners for Pennsylvania anthractic (underfeed type) (second edition).
49-34. Chip board, laminated chip board, and miscellaneous boards for book binding purposes.

50-34. Binders board for bookbinding and other purposes.

51-35. Marking articles made of silver in combination with gold.

52–35. Mohair pile fabrics (100-percent mohair plain velvet, 100-percent mohair plain frieze, and 50-percent mohair plain frieze).

53-35. Colors and finishes for cast stone.

CS No. 54-35. Mattresses for hospitals. 55-35. Mattresses for institutions. 55-36. Mattresses for institutions for the conduction of the c

56-41. Oak flooring (second edition). 57-40. Book cloths, buckrams, and impregnated fabrics for bookbinding purposes except library bindings (second editioa).

58-36. Woven elastic fabrics for use in overalls (over-

all elastic webbing). 59-41. Woven textile fabrics-testing and reporting

(third edition). 60-36. Hardwood dimension lumber.

61–37. Wood-slat venetian blinds. 62–38. Colors for kitchen accessories. 63–38. Colors for bathroom accessories. 64–37. Walnut veneers.

65-43. Methods of analysis and of reporting fiber composition of textile products (second edition).

66-38. Marking of articles made wholly or in part of platinum.

67-38. Marking articles made of karat gold. 68-38. Liquid hypochlorite disinfectant, deodorant,

and germicide. 69-38. Pine oil disinfectant.

70-41. Phenolic disinfectant (emulsifying type) (second edition) (published with C571-41), 71-41. Phenolic disinfectant (soluble type) (second edition) (published with C570-41).

72–38. Household insecticide (liquid spray type). 73–43. Old growth Douglas fir standard stock doors

(second edition). 74–39. Solid hardwood wall paneling.
75–42. Automatic mechanical draft oil burners designed for domestic installations (second

edition)

76-39. Hardwood interior trim and molding.
77-40. Sanitary cast-iron enameled ware.
78-40. Ground-and-polished lenses for sun glasses (second edition) (published with CS79-40).
79-40. Blown, drawn, and dropped lenses for sun glasses (second edition) (published with CS78-40).

80-41. Electric direction signal systems other than semaphore type for commercial and other vehicles subject to special motor vehicle laws (after market).

81-41. Adverse-weather lamps for vehicles (after market).

82-41. Inner-controlled spotlamps for vehicles (after market).

83-41. Clearance, marker, and identification lamps for vehicles (after market).
84-41. Electric tail lamps for vehicles (after market).

85-41. Electric license-plate lamps for venicles (after

market). 86-41. Electric stop lamps for vehicles (after market).

87-41. Red electric warning lanterns. 88-41. Liquid-burning flares.

89–40. Hardwood stair treads and risers.

90-

90- . (Reserved for power shovels and cranes.)
91-41. Factory-fitted Douglas fir entrance doors.
92-41. Cedar, cypress and redwood tank stock
lumber.
93-41. Portable electric drills (exclusive of high

frequency 94-41. Calking lead.

95–41. Lead pipe. 96–41. Lead traps and bends.

97-42. Electric supplementary driving and passing lamps for vehicles (after market). Artists' oil paints.

98-42

99-42. Gas floor furnaces—gravity circulating type. 100-42. Multiple-coated, porcelain-enameled steel intensils.

101-43. Flue-connected oil-burning space heaters equipped with vaporizing pot-type burners.

Item

¹ Where "(E)" precedes the CS number, it indicates an emergency commercial standard, drafted under war conditions with a view toward early revision.

Item

102- (Reserved for Diesel and fuel-oil engines,) 103-42. Cotton and rayon velour (jacquard and plain). (E) 104-43. Warm-air furnaces equipped with

(E) 104-43. Warm-air intringers equipped with vaporizing pot-type oil burners.
105-43. Mineral wool; loose, granulated, or felted form, in low-temperature installations.
(E) 106-43. Boys' pajamas (made from woven

fabrics).
(E) 107-43.¹ Commercial electric-refrigeration condensing units.

Item

CS No.
103-43. Treading automobile and truck tires.
109-44. Solid-fuel-burning forced-air furnaces.
110-43. Tire repairs—vulcanized (passenger, truck, and bus tires).
111-43. Earthenware (vitreous-glazed) plumbing

fixtures.

112-43. Homogeneous fiber wallboard.
113-44. Oil-burning floor furnaces equipped with
vaporizing pot-type burners.

114-43. Hospital sheeting for mattress protection.

NOTICE.—Those interested in commercial standards with a view toward accepting them as a basis of everyday practice may secure copies of the above standards, while the supply lasts, by addressing the Division of Trade Standards, National Bureau of Standards, Washington 25, D. C.

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