

## RECENTLY PATENTED INVENTIONS.

## Agricultural Implements.

CULTIVATOR.—GEORGE W. HENRY, Oil City, Pa. The cultivator comprises handles supported by a traction-wheel. At the forward portion of the handles, cultivator-teeth are arranged, between which and the traction-wheel is a driving connection. A rod is extended from the shaft of the traction-wheel; and with the rod a frame has swinging connection. A protecting hood is connected with the frame. During the forward movement of the machine, the hood will ride upon the ground; and the swinging connection of the frame with the rod will permit the hood to adjust itself to the formation of the ground.

FEED-REGULATING DEVICE FOR GRAIN-DRILLS.—ROBERT H. SCHLACHTER, Clay Center, Neb. The invention provides a means whereby the amount of seed delivered from the discharge-opening of a grain-drill-feed-box can be simply and accurately regulated. A threaded sleeve is employed, through which the shaft carrying the feed mechanism passes. The sleeve, when turned, shifts the shaft and the feed mechanism across the discharge-opening of the feed-box, thereby regulating the amount of seed fed with the utmost nicety.

## Tools and Special Implements.

DEVICE FOR CLEANING WATCH-MOVEMENTS.—JOHN J. HIGGINS, Duquoin, Ill. This simple device is especially adapted for cleaning any watch or clock movement. The principle of operation consists in imparting a rapid alternating motion to the device in the presence of a cleaning compound or liquid, and for holding the parts to be cleaned in such position that the compound will reach all faces or surfaces.

## Vehicles and Their Accessories.

WAGON-BRAKE.—THOMAS CALLISTER, Queens, Borough of Queens, New York city. The inventor has found by practical experience that brakes having their main parts supported entirely on the axle are objectionable, because by their shaking in the joints with every rise and drop they rattle and get out of order. The present invention provides an improved form of brake which will be effective for securely holding the wheels of a heavy wagon when descending a hill, and in which the rear or actuating lever and all joints, except one, are supported by the wagon body, and are relieved through the medium of springs of much of the jarring and shaking.

## Railway Appliances.

SEAT.—FREDERICK H. JANSON, Brooklyn, New York city. Combined with a base are a reversible seat, a back, and a member on which the back is carried. By means of a pivotal and slideable connection the member is mounted on the base. The member, moreover, has a part movable into engagement with a part of the base to hold the member. Between the member and the seat is a connection whereby the seat is reversed. The construction is such that the seat and back can be easily mounted reversibly.

COUPLER.—CHARLES A. MCKERAHAN, Wilmerding, Pa. The coupler is of the Janney type, and has for its object to provide novel features of construction which render the parts very reliable in service, adapt them for automatic connection, and afford means for their safe detachment from either of two cars coupled together. Owing to the simplicity of the improved car-coupling and its peculiar construction, great strength is obtained with a minimum of weight.

## Miscellaneous Inventions.

HATCH-COVER.—WINFIELD W. DAWLEY, Geneva, Ohio. Mr. Dawley has devised a hatch-cover, which, when battened down, will hermetically seal the hatch, and which, though it be of large size and great weight can be lifted readily from the hatch-coaming by means of a cable passing over a post and connected with a windlass.

APPARATUS FOR AERATING WORT AND IMPROVING THE QUALITY OF YEAST.—MAX WALLERSTEIN and HANS H. FREUND, Manhattan, New York city. By the use of this apparatus wort is aerated with filtered air in any desired quantity during fermentation with the result that yeast of healthy growth and great purity is obtained. As the quantity of air introduced is very small, it is possible to aerate the wort even when the yeast is in vigorous fermentation—an end which, although of great importance, has never been hitherto attained, since the wort would overflow.

NECKTIE-FASTENER.—ERNEST KIENE, Spokane, Wash. The fastener is composed of a strip of spring metal constituting a neck-band. One end of the strip is turned for a short distance within the band. In the upper edge of the turned portion a notch for engagement by the shank of a collar-button is provided. The device holds the tie properly in position and permits its ready removal.

METHOD OF MAKING HYDROGEN DIOXID.—PAUL L. HULIN, Clavaux, par Riouéroux, Isère, France. The process enables oxygenated water to be made upon a commercial scale by the direct employment of sodium dioxide. The sodium dioxide is decomposed by hydrofluoric acid in the presence of

water to form hydrogen dioxid, and the sodium is converted into an insoluble precipitate of cryolite by aluminium fluorid.

SCREEN-DOOR FASTENER.—WILLIAM B. COCHRANE, Pocatello, Idaho. The purpose of the invention is to provide a door-fastener for holding a spring-door completely closed, and yet permitting the door to be pushed open without using the hands. The simple device which the inventor has patented to attain his purpose is of such construction that the door can be secured in closed position at any time desired.

STOPPER FOR BOTTLES.—JACOB A. MOLLER, Jr., Brooklyn, New York city. The stopper is of the ball or rotary type and is especially adapted for sauce and cologne bottles. The stopper can be made to close the mouth of the bottle tightly, and can be quickly brought into position to discharge the liquid contents of the bottle either from a point at the central portion of the mouth or at any point at either side of the center.

DOUCHE-BENCH.—THOMAS F. McCULLOUGH, Memphis, Tenn. The bench has a frame; a leaf; a leg intermediately pivoted on the frame and arranged when in operative position to engage one end with the leaf to hold it raised; and a hinged extension on the end of the leg. The bench can be folded and stored away in a small space.

DEVICE FOR SMOKELESSLY HEATING INSECT-POWDER.—JOHN C. SEARLE, Hilea Kau, Hawaii. The device can be applied to a lamp-chimney, gas-globe, or the like, and is adapted to contain a powder, the fumes of which have a destructive effect upon mosquitos. The device is applied to the lamp so that the powder is roasted and not consumed by the fire, thereby obtaining fumes noxious to insects and yet free from smoke.

BUSTLE AND HIP EXTENSION.—MARY E. WETHERELL, Boston, Mass. The subject of the invention is a new and improved bustle and hip extension arranged to give the desired hang and fulness to the skirt. The bustle, hip portions, and hip extension portions are all fastened together at their middle and extend one outside of the other.

GRAIN-ELEVATOR.—PAUL BÉDARRIDES, Rue de la Verrerie 4, Paris, France. The grain is elevated by means of a vacuum obtained by an ejector of steam in a separating chamber, where the blast of air which carries forward the product is separated. The novel application of an ejector of steam to produce the vacuum in the suction-pipe offers great advantages over the pumping apparatus which might be used for the same purpose; for a uniform suction is produced, which can be easily regulated at will.

COMBINED HEATER, COOLER, AND STORAGE BASKET.—NONNA FERNER BONIFACE, P. O. Box 95, Madison Square Branch, Manhattan, New York city. Mrs. Ferner Boniface is the inventor of a combined heater, cooler, and storage basket for containing filled and empty nursing bottles and other articles and food products, as well as fuel. The arrangement permits the convenient heating or cooling of the milk in the nursing bottle. The entire basket is portable and is of special service during a railway journey, or during a stay at a hotel. A supply of milk or food can be kept on hand, hot or cold, for immediate use by invalids or infants. That the basket is also serviceable for outing parties goes without saying.

PROCESS OF REFINING OILS.—FRITZ LINDE, Dortmund, Germany. This process of treating rape-seed oil and other sweet oil consists in the following steps: adding 10 to 15 per cent of rich milk to the oil; heating the mixture and continuing the application of heat until a thick covering or layer is formed; and removing the layer or covering. The layer prevents the rising and boiling over of the liquid. The oil is purified and its odor and taste improved.

GARMENT-HANGER.—MARTIN H. BUSHNELL and BENJAMIN F. STARSKY, Hazelhurst, Pa. The inventors have devised a novel, simple and cheap garment hanger, which can be used to hang up men's or women's clothes. When not in use the hanger can be quickly reduced in length to permit its convenient storage in a small case.

FISH-TRAP.—EPHRAIM W. LIVERMORE, New Whatcom, Wash. The fish-trap is of the class designed to be floated in the water and anchored in proper place. In construction, the trap comprises a lead, a heart and a crib, with certain peculiar features of construction producing a trap efficient in every respect.

ANIMAL-POKE.—CLAYTON W. FORD, Findlay, Ohio. This simple and effective device prevents cows from butting or "jamming." The invention consists of the peculiar combination of a face-plate having a hooked upper end; a curved head-plate pivoted directly to the face-plate near its upper end; a spur or point forming a prolongation of the curved head-plate; and a spring for forcing the curved head-plate away from the face-plate by butting. Pressure against the curved plate overcomes the force of the spring and causes the spur to be buried in the tender part of the neck of the cow.

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## Business and Personal Wants.

READ THIS COLUMN CAREFULLY.—You will find inquiries for certain classes of articles numbered in consecutive order. If you manufacture these goods write us at once and we will send you the name and address of the party desiring the information. In every case it is necessary to give the number of the inquiry.

MUNN & CO.

Marine Iron Works, Chicago. Catalogue free.

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Inquiry No. 2077.—For dealers in glass show cases.

"U. S." Metal Polish. Indianapolis. Samples free.

Inquiry No. 2078.—For makers of machinists' tools.

WATER WHEELS. Alcott & Co., Mt. Holly, N. J.

Inquiry No. 2079.—For dealers in fireproof wood for building purposes.

Stencil Machines. A. J. Bradley, 101 Beekman St., N. Y.

Inquiry No. 2080.—For manufacturers of machines for mixing baking powders.

Handle & Spoke Mch. Ober Mfg. Co., 10 Bell St., Chagrin Falls, O.

Inquiry No. 2081.—For dealers in gas for balloons.

Sheet metal stamping and light manufacturing. Fornskell Motor Co., Anderson, Ind.

Inquiry No. 2082.—For parties engaged in constructing fire escapes.

Sawmill machinery and outfitts manufactured by the Lane Mfg. Co., Box 13, Montpelier, Vt.

Inquiry No. 2083.—For makers of sand pumps and fixtures for same.

Rigs that Run. Hydrocarbon system. Write St. Louis Motor Carriage Co., St. Louis, Mo.

Inquiry No. 2084.—For makers of conjuring apparatus.

For sheet metal stampings and novelties try Standard Stamping Co., Seventh and Hudson, Buffalo, N. Y.

Inquiry No. 2085.—For makers of air compressors.

Ten days' trial given on Daus' Tip Top Duplicator. Felix Daus Duplicator Co., 5 Hanover St., N. Y. city.

Inquiry No. 2086.—For stone crushers for crushing sandstone into sand.

Are you looking for anything in bent woodwork? Write Tucker Bicycle Woodwork Co., Urbana, Ohio.

Inquiry No. 2087.—For manufacturers of novelties for the mail order business.

We develop inventions through their several stages, manufacturing for the market. Amstutz Osborn Co., Cleveland, O.

Inquiry No. 2088.—For makers of small locomotives of 2 or 3 horse power.

PATENTS FOR SALE.—Improved fishing nets for steam or sailing vessels; deep or shallow waters. M. A. Box 73, New York.

Inquiry No. 2089.—For dealers in cotton seed oil machinery.

Automobiles built to drawings and special work done promptly. The Garvin Machine Co., 149 Varick, cor. Spring Streets, New York.

Inquiry No. 2090.—For makers of mica machinery.

Manufacturers of patent articles, dies, stamping tools, light machinery. Quadriga Manufacturing Company, 18 South Canal Street, Chicago.

Inquiry No. 2091.—For the manufacturers of the "Elfin Alligator Wrench."

Designers and builders of automatic and special machines of all kinds. Inventions perfected. The W. A. Wilson Machine Company, Rochester, N. Y.

Inquiry No. 2092.—For machines to cut and finish slats for Venetian blinds of about 18 inches wide.

The celebrated "Hornsby-Akroyd" Patent Safety Oil Engine is built by the De La Vergne Refrigerating Machine Company, Foot of East 138th Street, New York.

Inquiry No. 2093.—For dealers in the Phillips Morse Automatic Telegraph.

NOVELTIES.—Dealers and inventors of novelties should write with full particulars to J. W. Rowe & Co.'s Successors, 15 Aldermanbury, London, E.C., England.

Inquiry No. 2094.—For a firm or corporation with salable article used around steam plants, to give full control of same to a corporation for the New England States.

PATENT NO. \$30,913 FOR SALE.—Incandescent electric light support. Light movable to any spot wanted. Simple and practical. Address Inventor, Box 48, Springfield, Vt.

Inquiry No. 2095.—For parties making an electric welding machine for welding bands of steel  $\frac{1}{4}$  to  $\frac{1}{2}$  inches in width.

WANTED.—A first-class engineer to take charge of a Corliss compound condensing engine. Recommendation required. Apply Royal Bag and Yarn Manufacturing Company, Charleston, S. C.

Inquiry No. 2096.—For makers of castings for steam engines.

Wanted—Revolutionary Documents, Autograph Letters, Journals, Prints, Washington Portraits, Early American Illustrated Magazines. Correspondence Solicited. Address C. A. M. Box 73, New York.

Inquiry No. 2097.—For dealers in Java and artificial indigo.

EXPERIMENTAL MACHINE SHOP.—We are not using our shops at present. Well equipped with lathes, shaper, woodworking machinery, etc. Will rent use and power very low. Fine place for automobile work. Billings Clapp Co., Boston, Mass.

Inquiry No. 2098.—For a machine for printing on calico.

MANUFACTURE WANTED.—For patent shaft-governed high-speed engine, fully demonstrated, authentic tests. All machine works standardized for cheap production. Full working drawings and personal supervision if required. Address Y. K. E., at Hornbeam's Advertising Offices, 61 Cheapside, London, England.

Inquiry No. 2099.—For dealers in weaving and knitting machines.

Duster for cleaning webs, etc., G. M. Bell..	693,100	Mechanical movement, C. Dietz.....	692,993	Structural support, E. Fenton.....	692,841
Easel back, H. W. Jo's.....	692,857	Merry-go-round, W. F. Mangels.....	693,295	Sulfur and making same, substituted, J. Koetschet.....	692,868
Electric circuit contr., r. G. J. Coleman.....	693,110	Metallic particles from strips or webs, apparatus for removing, G. H. Davis.....	693,980	Surgical ligatures, preparing and inclosing, R. W. Johnson.....	693,138
Electric conductors, for or sheathing for, E. Witzenmann.....	692,960	Mines, car dump for elevators in, J. Moses.....	692,888	Suspenders and belt, interchangeable, H. J. Bloomer.....	693,101
Electric currents, electromagnetic regulator for, J. D. Hilder.....	693,023	Mirror frame, P. N. Staff.....	693,077	Swing, W. Merker.....	693,040
Electric elevator, N. O. Lindstrom.....	693,028	Mirror, mouth, W. E. Knight.....	693,140	Switch throwing device, P. L. Swank.....	693,185
Electric switch, J. & J. Jones, Jr.....	693,275	Motion checking device, H. Lamp.....	692,871	Syringe holder, fountain, G. Schirmer.....	692,920
Electrical connecting cord, C. H. McEvoy.....	692,890	Motion checking device, mechanism for operating, O. F. Persson.....	692,900	Syringe, hot air, Schramm & Wilford.....	693,162
Electrical device for the treatment of diseases, W. J. Gavilan.....	693,257	Mower buncher attachment, J. F. Wheeler.....	693,093	Table, E. Tyden.....	693,337
Electrical distributor, J. Springer.....	693,365	Mowing machine, A. Von Loepke.....	693,287	Tags, machine for making metal, F. C. Grove.....	693,241
Electrical generating machine, J. N. Phifer.....	692,001	Muslin sheets with a line indicating an effect to be produced device for marking perforated, F. L. Young.....	692,969	Tap, bottle, E. Walker.....	692,951
Electrically heated apparatus, V. Monath.....	693,144	Nut, cap, A. G. Anderson.....	692,812	Telegraphic transmitter, C. E. Yetman.....	692,967
Electrically heated electrolytic, C. O. Bastian.....	693,216	Nut lock, Rieck & Euge.....	693,154	Telephone receiver, J. G. Nolen.....	692,897
Elevator gear, W. M. Bainbridge.....	693,212	Operator's key, A. Carliss.....	693,341	Telephone system, Stasius & Egner.....	693,356
Elevator safety attachment, G. F. Jones.....	693,027	Ores, treating, E. B. Parnell.....	692,825	Thermometer, oven, G. J. Day.....	693,118
Elevators, electro-pneumatic control system for, A. Sundh.....	693,184	Paper box blank, H. B. Smith.....	693,169	Thill support, R. T. Gillespie.....	693,261
Engine tender, traction, U. A. Shirey.....	693,074	Paper coating process, A. Thomsen.....	693,189	Threshing machine, S. Southworth.....	693,180
Evener, four horse, A. Croser.....	692,987	Paper fastener, R. McMahon.....	693,302	Tire, rubber, C. H. Bryan.....	692,980
Excavator, W. S. McKinney.....	692,882	Paper making, H. Parker.....	693,354	Tire, vehicle, J. B. Tougen.....	693,083
Excavator, W. M. Gross.....	693,266	Pavement, H. G. Volkmar.....	693,192	Toilet outfit, T. O. Holland.....	692,853
Fastener, F. R. White.....	692,953	Pawl and ratchet mechanism, R. F. Barker.....	693,344	Tool holder, A. H. & J. A. Bedworth.....	693,346
Faucet, combination, G. A. Soderlund.....	693,315	Pea huller, J. M. Sanders.....	693,072	Top, flying, A. W. Morgan.....	693,328
Feedwater heater and purifier, T. Gunnin.....	693,268	Perforator, I. W. Tobe.....	693,082	Toy, aerial, G. W. Melville.....	693,191
Feeder for motor vehicles, boiler, W. L. Tobe.....	693,190	Photographic package, F. W. Humphreys.....	693,156	Toy, dancing, W. R. Reppell.....	692,907
Feeding mechanism, rotary, Roebeck & McMillan.....	693,158	Physician's table tray support, W. H. Kersey.....	692,861	Toy, flying, Matteson & McArthur.....	693,327
Feeding rack, S. L. Lamoreux.....	693,279	Piano action, E. M. Hamilton.....	693,131	Toy, wheeled, M. Flick.....	692,999
Felly and tire brace, J. M. Therne.....	692,944	Piano players, governing device for pneumatic, T. P. Brown.....	692,978	Track sanding device, car, A. L. Sprague.....	692,938
Fence, T. F. De Witt.....	692,991	Picket. See Fruit picker.....	692,999	Transformer, rotary, R. E. Ball.....	693,098
Fence post, J. Pegg.....	693,061	Picture mount and portfolio therefor, M. W. McDonald.....	693,052	Trap, See Animal trap.....	
Fence post and brace, L. L. Leslie.....	693,285	Pipe, for the support of bridges, G. Pascale.....	693,059	Tread, metallic stair, F. M. Mahony.....	693,143
Fence tool, wire, J. O. Berry.....	692,818	Piping, A. B. Clark.....	693,235	Trolley harp and wheel, W. A. Heller.....	692,851
File and copy holder, combined letter, Barber & Bliss.....	693,279	Piling machine, D. J. Brophy.....	693,123	Trolley head, D. A. Petre.....	693,309
File, letter, F. McIntyre.....	693,301	Pipe coupling, train, J. E. Forsyth.....	693,125	Trunk bolster, A. B. Bellows.....	693,220
Fire alarm, explosive, C. E. Buell.....	693,229	Pipe thimble or fusilier, W. B. Cheate.....	693,123	Trunk frame, A. B. Bellows.....	693,219
Fire detector and alarm, F. G. Gaschlin.....	693,003	Piston, S. Trethewey.....	692,881	Trunk caster support, C. H. Kurz.....	693,034
Photographic package, F. W. Humphreys.....	693,156	Piston valve, R. T. Lindsay.....	693,053	Trunk strap, O. A. Stoneman.....	693,079
Physician's table tray support, W. H. Kersey.....	692,861	Plow, cultivating, J. Y. Raymonds.....	692,968	Tubes, drawing, S. E. Discher.....	693,119
Piano action, E. M. Hamilton.....	693,131	Plow, garden, W. J. Stewart.....	692,941	Tubes, machinery for producing seamless metallic, McIntosh & Thornburgh.....	693,053
Piano players, governing device for pneumatic, T. P. Brown.....	692,978	Plow, reversible, E. J. Couch.....	692,986	Tubing, flexible metallic, F. G. Frinkenberg.....	693,000
Pineapple picker, H. Ellsworth.....	692,838	Pole scupper, reversible disk, W. B. Michael.....	693,042	Tubular articles, apparatus for flanging holes in, J. P. Sneddon.....	693,177
Furnace for refining lead and zinc fume, F. L. Bartlett.....	692,972	Pork larding machine, A. M. Burleson.....	692,824	Tubular articles of irregular shape, Shaping wrought metal, J. P. Sneddon.....	693,278
Furnace valve and dust catcher, G. G. Crawford.....	693,240	Porous materials, compound for protecting and indurating, A. Wolf.....	692,961	Type writer, R. Lambert.....	
Garment supporter, J. S. Dorsey.....	693,122	Pouch making machine, Millhiser & Deppe.....	692,887	Type writer copy holding device, E. W. Forney.....	
Gas apparatus, acetylene, J. S. McGinn.....	692,891	Poultry house, portable, G. C. Lathrop.....	693,045	Type writer keyboard, F. Lambert.....	693,277
Gas apparatus for the manufacture of illuminating, C. W. Isbell.....	693,137	Power transmitting mechanism, W. H. Lucas.....	693,283	Type writing machine, T. L. Knapp.....	693,088
Gas burner, self closing, W. & I. Gleo.....	693,352	Preserve jar, S. Oakman.....	693,290	Type writing machine paper guide, T. Oliver.....	693,057
Fluid pressure regulator, H. F. Smith.....	692,894	Primary battery, J. W. Frees.....	693,056	Type writing machine type cleaning device, J. A. Whiting.....	692,954
Fruit picker, H. Ellsworth.....	692,838	Printing machine, H. A. W. Wood.....	693,001	Type writer copy holding device, E. W. Forney.....	693,274
Furnace for refining lead and zinc fume, F. L. Bartlett.....	692,972	Printing press, J. H. Stonemetz.....	693,263	Upholster work, spring, C. S. Ellis.....	692,837
Gauge, water and dust catcher, G. G. Crawford.....	693,116	Printing press dry finger, R. Miehle.....	693,043	Vaginal irrigator, H. W. Westlake.....	693,358
Gates. See Cut gate.....		Printing press impression mechanism, H. A. W. Wood.....	693,204	Valve, fire, F. Gray.....	693,321
Gate fastener, wire, A. Edwards.....	692,996	Printing press offset mechanism, R. Michle.....	693,044	Valve, fire, automatic duplex check and stop, F. Hennebelle.....	693,133
Glass blowing machine, E. B. Ball.....	692,813	Projectile, C. E. Neubauer.....	693,329	Valve, gate, D. Lemley.....	693,036
Glass, chipping, Daves & Hull.....	693,243	Propeller, vessel, D. H. Rohwedder.....	692,910	Valve gear link, N. McClure.....	693,051
Glassware forming machine, Haley & Bridgwater.....	693,130	Pulp machine for the manufacture of sheets, boards or tubes from, F. E. Keyes.....	692,862	Valve gearing, W. N. Rumely.....	692,913
Golf register, Rennie, & Van Derbeek.....	692,966	Pulp screen, centrifugal, J. H. Baker et al.....	693,215	Valve, self cleaning needle, W. J. Jackman.....	692,856
Governing device for engines, etc., J. & H. McLaren.....	692,893	Pulverizing mill, C. Wallace.....	693,089	Valve, water tank supply, W. E. Clark.....	692,983
Grease containing material, treating, J. J. Seldner.....	692,922	Pump, H. S. Clark.....	693,236	Valve, water tank supply, W. H. Weightman.....	693,195
Grinding or crushing head, V. W. Mason, Jr.....	692,886	Pump, centrifugal, J. Edwards.....	693,247	Vault, burial, G. B. Okey.....	693,304
Gun, automatic, A. Burgess.....	693,105	Pump, steam, F. Freyhold.....	693,126	Vehicle brake, H. Lemp.....	692,872
Gun breech mechanism, A. W. Schwarze.....	693,106	Punch, shear, T. F. Phillipi.....	693,310	Vehicle frame, motor, J. L. Spencer.....	693,181
Guns, means for effecting noiseless discharge of, J. E. Bissell.....	692,819	Sheet, C. A. Wright.....	692,973	Vehicle, motor, W. Bowker, Sr.....	693,102
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We have had occasion previously, in these columns, to comment upon the first volume of the Handbuch. We regret that our very limited space prevents us from devoting to the second volume the extensive review which it deserves. The book is certainly one of the most exhaustive treatises on modern civil engineering that has come to our notice. Prof. Landsberg and his colleagues deserve the thanks of every engineer for the painstaking manner in which they have treated one of the broadest of modern scientific subjects.

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