

ELECTRIC RAILWAY JOURNAL

McGraw-Hill Company, Inc.

June 29, 1918



The General Electric No. 258 Motors on the safety cars of the Austin Street Railway are SKF equipped. To protect your motors from lubrication troubles specify ball bearings marked SKF.



SKF





A Conclusion

"I'm glad you referred me to the 'Electric Railway Journal' of May 11th when you were here last week," said the Vice President. "It is difficult for me to realize just why we have never gone into this freight question before. I am of the opinion that we should make a complete investigation of the freight haulage possibilities in our communities. We must get in touch more with the Boards of Trade and Merchants Associations in the business centers that we serve, and make it clear to them all how effectively we can serve them."

"All right, sir," replied the General Manager, "I am confident that they will co-operate with us. I am going to ask the Westinghouse Electric people to give us the benefit of their experience, and believe that they are in a position to furnish prompt and expert advice. They have standardized freight motors and locomotives, both of which are performing regular freight service successfully on a number of the foremost roads of the country."

"I believe you are right," said the Vice President. "They must have made an exhaustive study of Electric Freight Haulage requirements, before going into it so extensively."

Westinghouse Electric
East Pittsburgh



& Manufacturing Co.
Pennsylvania

Electric Railway Journal

H. W. BLAKE, *Editor*

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Raise Rates to Permit Payment of Higher Wages

Living wages must be paid, but the War Labor Board should not disregard financial condition of properties. Federal aid is needed to secure compensating fare increases.....Page 1223

Progress in Power Generation and Transmission

American Institute of Electrical Engineers held its annual convention at Atlantic City this week with a program of valuable papers on lightning protection, power production and distribution, and related subjects.....Page 1229

New York Association Holds Meeting at Bluff Point

The economic situation was considered in several papers and reviewed by speakers in the discussion. Publicity as a solution recommended by Ivy L. Lee and B. A. Hegeman, Jr. Association pledges its support to the government.....Page 1232

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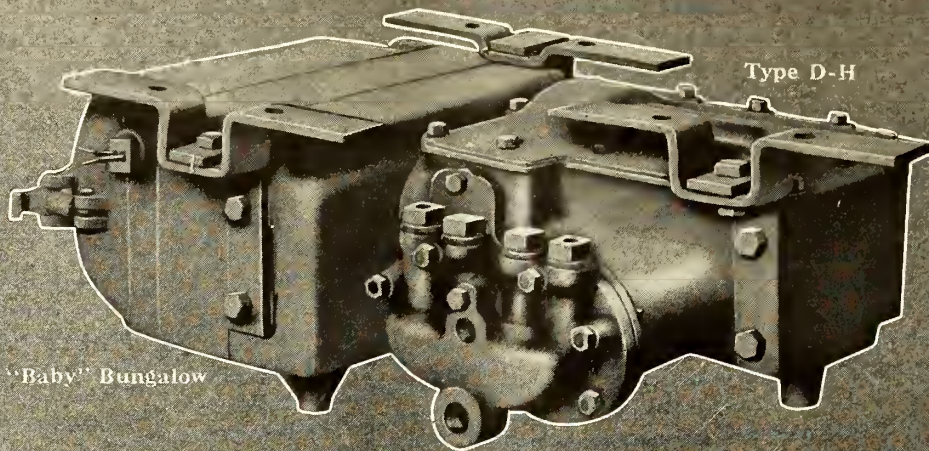
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Coal Age
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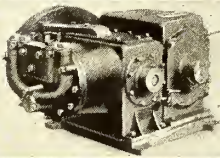
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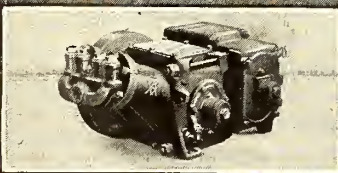
Air Compressors



Type D-4-K



Type D-2-R

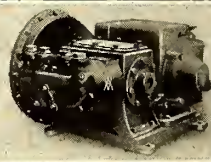


Type D-2-L

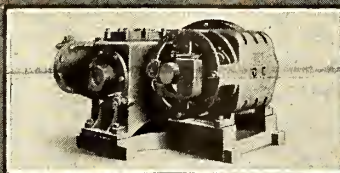
Westinghouse Air Compressors cover a broad field of service. Meet all operating conditions. Can be fitted to any current. Capacities range from 10 to 150 cubic feet per minute. Write to our nearest office.



Type D-1-F



Type D-2-EG



Type C-60



Type D-3-La

Brake Building our Business for a Lifetime

Westinghouse Traction Brake Company

General Offices and Works, Wilmerding, Pa.

Atlanta, Ga.
Boston, Mass.
Chicago, Ill.
Columbus, O.

Denver, Col.
Houston, Tex.
Los Angeles, Cal.



Mexico City
New York, N. Y.
Pittsburgh, Pa.

San Francisco
Seattle, Wash.
St. Louis, Mo.
St. Paul, Minn.

Over the Top

of Westinghouse High-Tension Transformers

Are the Condenser-Type Bushings



The construction of Westinghouse Condenser-Type Bushings is such, that the voltage stress upon the insulation is practically uniform from the surface of the conductor to the grounded flange outside.

The fall of potential is also uniform along the outer surface of the insulation, from the grounded flange toward the point at either end where the high potential conductor emerges from the insulation.

The uniformity of dielectric stress along the surface, and approximate uniformity of dielectric stress in the insulating wall, together with strength of the materials, make a bushing of unusual electric and mechanical strength.

Westinghouse Electric &
Manufacturing Company
East Pittsburgh, Pa.

Sales Offices in All Large American Cities



Westinghouse

Phono-Electric

For SAN FRANCISCO LINE PERFECTION

The United Railroads of San Francisco recently ordered 10 miles of No. 00 round Phono-Electric Trolley Wire.

This wire was used for installation at important intersections where uninterrupted service counts for something.

And, of course, Phono-Electric isn't going in on our **claims**, but on Phono-Electric achievements at San Francisco's hardest place—the double loop at Market Street ferry.

PHONO-ELECTRIC

Users Can Put Off Metal Price Worries for Years

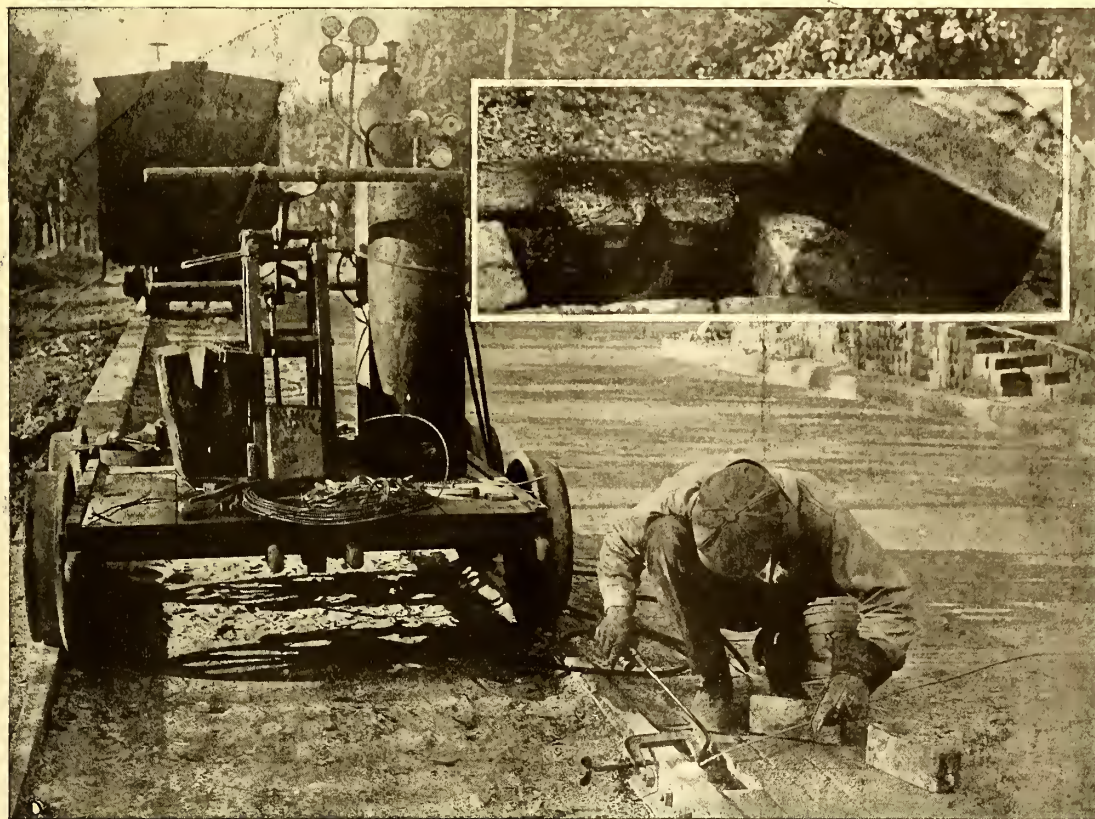
Bridgeport Brass Company

Bridgeport Connecticut





PRODUCTS



O-B Gas-Weld Bonds are particularly suited for paved streets. Only one or two bricks need be removed. The splice-plate is not disturbed—a valuable feature on any kind of rebonding.

O-B Rail Bonds Score Four Big Points

One large electric railway commenced rebonding two years ago and has used for the work a total of 5500 O-B Gas Weld Bonds.

Recently the road reported that due to the O-B Bonds:

It has cut power cost.

It has given better service.

It has reduced the number of burnt-out armatures.

It has kept better schedules.

Good bonding always saves money and improves operation. Any O-B Bond is a good bond.

There are several types—one for each condition. Take up your problems with our bonding specialists.

THE OHIO BRASS CO., Mansfield, Ohio

New York

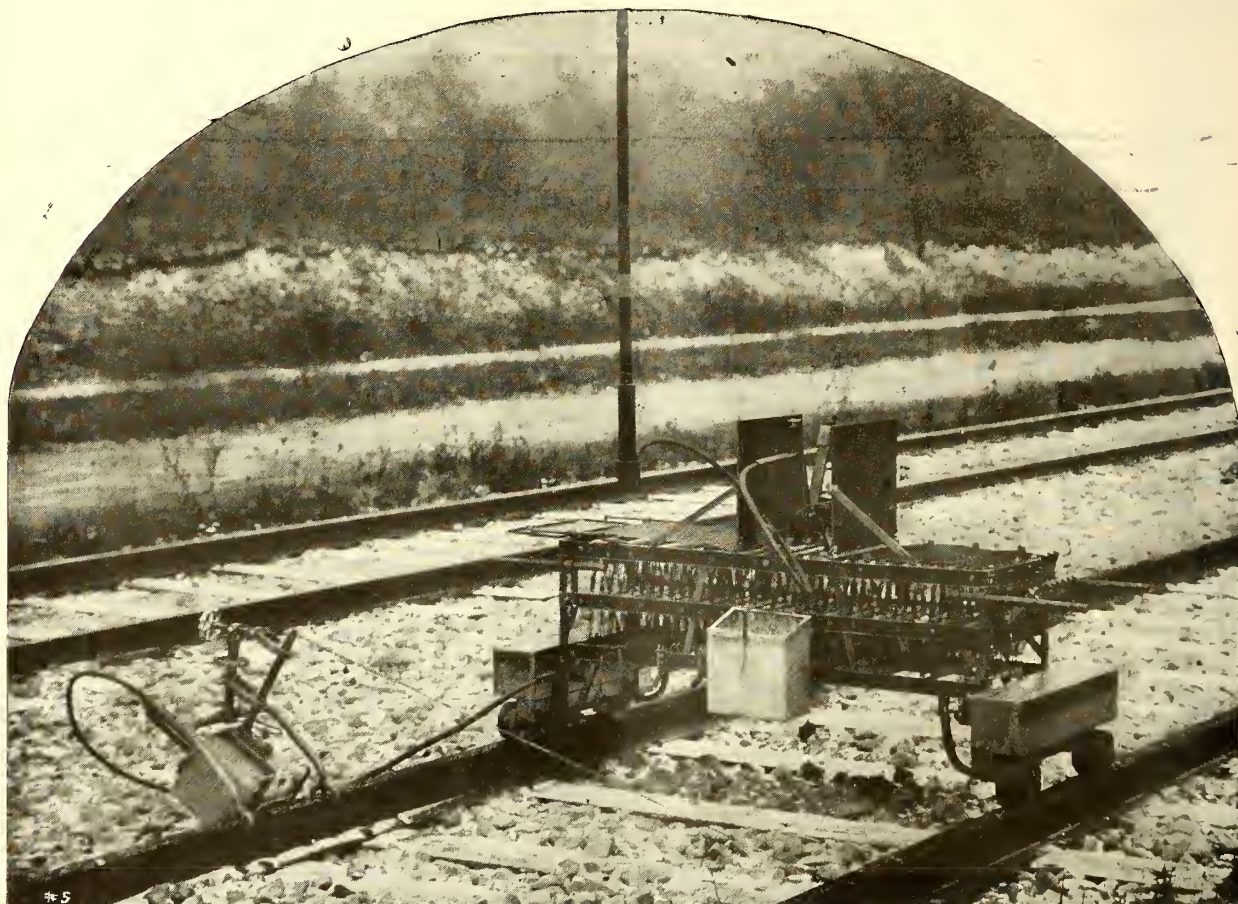
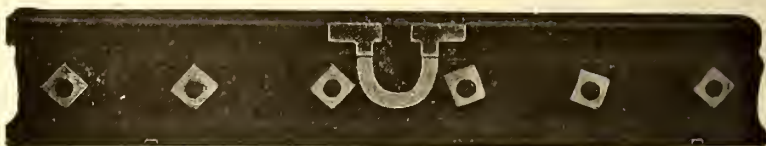
Philadelphia

Pittsburgh

Chicago

San Francisco

Los Angeles



Where Voltage is Low

as, for instance, at the end of the line, the Erico Portable Welder shows its great flexibility and usefulness as clearly and undeniably as anywhere else along the track.

Switches are so arranged that the outfit will weld rail bonds on voltages from 250 to 750.

Full information on request.

The Electric Railway Improvement Co.
Cleveland, Ohio

Wasted—

35% to 50% of TRACK MATERIAL

INTERNATIONAL STEEL TWIN TIES

Obviate this wasted material and labor

Of What Engineering Value Is the Concrete or Ballast Between Wooden Ties? Absolutely None. It Represents an Economic Loss of Track Material and Labor.

Steel Twin Ties are designed to overcome just that condition. The effective tie bearing area is placed at the top of the tie and parallel with the rail.

There is an engineering reason for every ounce of metal in a Steel Twin Tie. The 13 in. x 36 in. trussed plates carry the track loads and the 3 in. channels serve as anchorages and tie rods.

Several inches of concrete beneath the tie plate puts just that much in effective bearing. An inch more than is usually used. And at the same time the excavation and concrete quantities below base of rail are reduced one-half.

Any way you look at them they are engineeringly right. The longer you delay your purchase of some of these ties the more money you waste in extraneous track materials and labor.

Ask our users if you want our best sales argument. If you are convinced ask us for a quotation and delivery.

Prompt deliveries made from stock.



Permanent Track at Less Cost
Any Type Base — Open or Paved Track

The International Steel Tie Company

Manufacturers of Steel Twin Ties and Crossing Foundations
General Sales Office and Works: Cleveland, Ohio

REPRESENTATIVES:

Western Eng'g Sales Co.
Los Angeles, Cal.

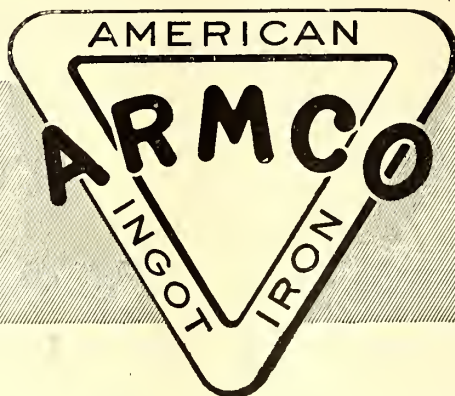
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Salt Lake City, Utah.

J. E. Lewis & Co.
Dallas, Texas.

Maurice Joy,
Philadelphia.

William H. Ziegler,
Minneapolis, Minn.



ACETYLENE

ELECTRIC

ARMCO WELDING RODS

—the kind that make **safe** welding easy
on new construction and repair work.

ARMCO Filler Rods are offered with two strong initial recommendations:

First: Manufacture of the raw iron with the skill and fidelity associated with all products of the American Rolling Mill Co., and

Second: Drawing and control of all finishing operations under direction of the laboratory specialists of the Page Steel & Wire Co.

Together these antecedents mean a reliability and uniformity heretofore not to be had, even in the best grades of Norway and Swedish irons.

ARMCO Rods being 99.84% pure iron, are peculiarly free from the sulphur, phosphorous, slag, oxides and other impurities that ordinarily destroy the homogeneity of the weld by introducing brittle, hard or weak spots, pin holes, blow holes, etc.

A weld made with ARMCO Rods closely approaches the original strength per square inch of the original metal section and lends itself particularly well to subsequent hammering or other finishing treatment.

The standardizing of two ARMCO Rods, one for acetylene and another for electric, *to do well* what has heretofore required a selection of one from ten to twenty grades greatly simplifies welding work, and ARMCO Rods now cost much less than any imported metal of approaching purity.

If interested in modern welding developments you will find it decidedly to your advantage to at least give ARMCO Rods careful test.

Ask us for performance records and reference to important users.

PAGE STEEL & WIRE CO.

Established 1883 as Page Woven Wire Fence Co.

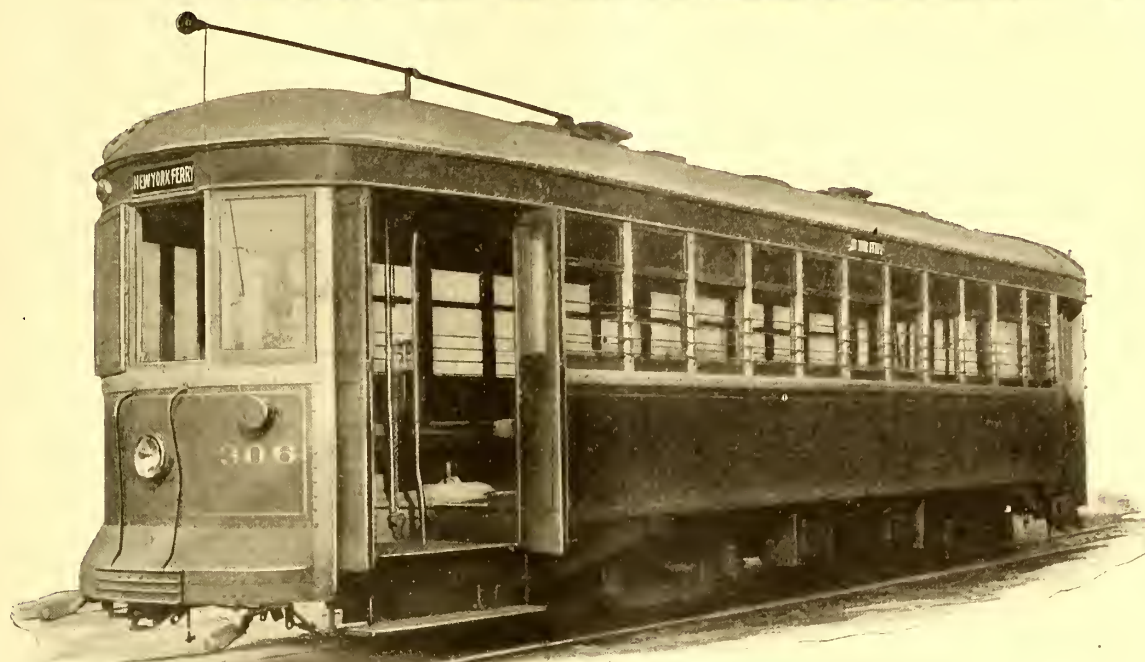
Makers of Copperweld Copper Clad Steel Wire; Armco Welding Rods and Electrical Wire; Wire Mill Products, Plain and Galvanized; Wire Fencing for all Purposes; Factory Gates; Wire of Special Analysis; Ornamental Iron Fence; Machine Guards; Tool and Stockroom Partitions; Architectural Iron.

FACTORIES: Monessen, Pa., and Adrian, Mich.

GENERAL SALES OFFICES:
30 Church Street
New York

WESTERN REPRESENTATIVES:
Steel Sales Corporation
Chicago





Car operated by the Richmond Light and Railroad Co., New Brighton, N. Y.

Illuminated Car Signs and "Golden Glow" Headlights—Sure Signs of a Progressive Railway Company

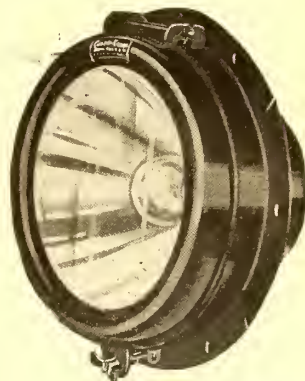
The Richmond Light & Railroad Company know well the great value of Keystone and Hunter Illuminated Destination Signs. Their signs attract riders for them and advertise their service, and besides, make easy the re-routing of their cars.

Their "Golden Glow" Headlights project powerful but soft non-blinding beams of golden light, thus lighting up a path of safety before their cars. In this manner "Golden Glow" Headlights inspire a certain confidence in both operators and riders.

Write for complete data on this equipment.



Typical Keystone Type Sign



"Golden Glow" Headlight
Type SR-95

ELECTRIC SERVICE SUPPLIES Co.

Manufacturer of Railway Material and Electrical Supplies

PHILADELPHIA
17th and Cambria Sts.

NEW YORK
50 Church St.

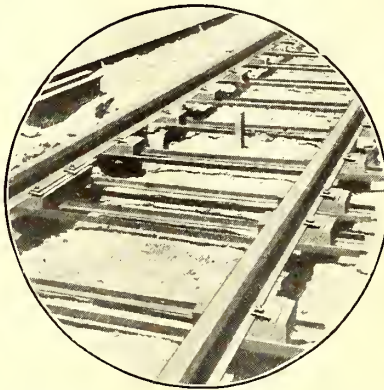
CHICAGO
Monadnock Bldg.

Canadian Distributors: Lyman Tube & Supply Co., Montreal, Toronto, Winnipeg.



The asphalt cushion in D-M Ties
saves your rails, your track and
your rolling stock

A 6" Steel I-Beam used
as a Tie showed
Indentations like
THIS!



What must have been
the effect on the roll-
ing stock to produce a
dent like
THIS?

In the above small circular picture is shown
a stretch of new track with D.M. Ties,
ready for the concrete to be poured in to
make a unit structure.



When a steel I-Beam fully 6 in. deep can
be hammered and distorted as shown in this
picture, enormously powerful blows must
have rained upon it. It was the absence of
a resilient cushion that made this tie suffer.
Such destruction could not have occurred to
D.M. Ties, which have wooden blocks, set
in asphalt, joined by steel twin bars.

Rigid—Resilient—Permanent.

Ask for details

THE DAYTON MECHANICAL TIE CO.

201 Third Street Arcade
DAYTON, OHIO





These Poles Have Rendered Long and
Sturdy Service

Northern White Cedar Poles

Lines of the Chicago & West Towns Railway Company at 64th Ave. South from Ridgeland Ave., Oak Park, Illinois.

Kind of poles—Northern White Cedar
Height —50 and 55 ft.
When set —In the days of the old
County Traction Company.
No records available.

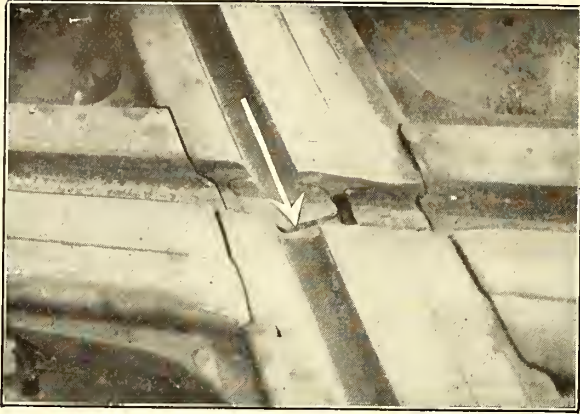
Load carried—13 feeder cables. 350,000
and 500,000 Cir Mils ca-
pacity. Leading from
Ridgeland P. House.

Present condition of poles is good.

The Chicago & West Towns Ry. connects Oak Park, River Forest, Maywood, Melrose, Cicero, Berwyn, Riverside, Lyons, La Grange & Forest Park. It was formerly controlled by County Traction Company and operated by the Chicago Railway Company.

Northern White Cedar Poles are Light in weight, Easy to Transport and Erect. They make the Sturdy, Serviceable, Attractive line.

Northern White Cedar Association, Lumber Exchange, Minneapolis, Minn.



Main flange or backbone of rolled rail crossing broken at flangeway intersection

Rolled Rail Crossings

develop frequent fractures at the point shown in the picture to the left. Such breaks are unavoidable because of the lack of flexibility at the flangeway intersections.

Balkwill Articulated Cast Manganese Crossings

have scientifically designed joints at the places where breakage formerly occurred. It takes several rolled rail crossings to equal the life of but *one* Balkwill Articulated Cast Manganese Crossing. Therefore the Balkwill Crossing is the cheapest in the long run.

It saves interruption to traffic, makes less demand on labor, which is now so scarce, and also reduces the cost of making replacements frequently.

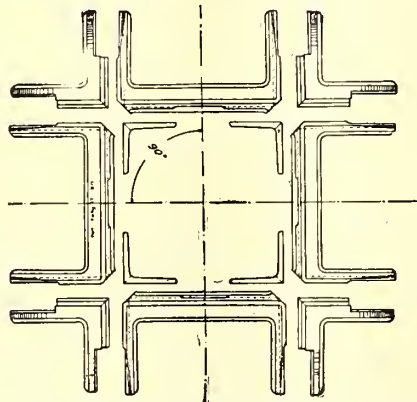
In other words, it gives you

**MORE WEAR PER DOLLAR THAN
ANY OTHER CROSSING YOU CAN BUY**

**Order Balkwill Articulated Cast Manganese Crossings
Direct from Your Special Work Manufacturers**

Write us for detail information and list of installations. Don't accept a substitute as there is none.

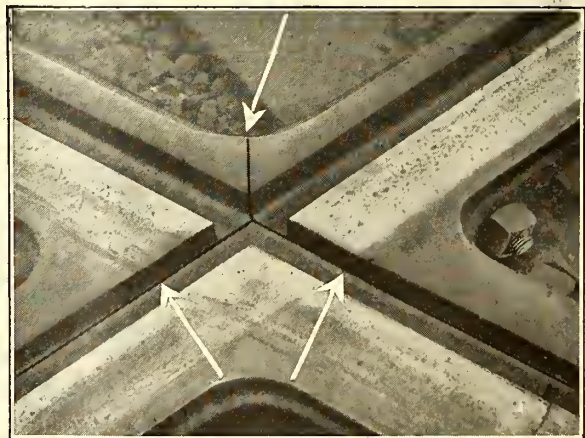
The Balkwill Manganese Crossing Co.
506 Williamson Building, Cleveland, Ohio



Joints at the flangeway intersections of Balkwill Articulated Cast Manganese Crossings positively eliminate breakage

Experience has demonstrated that rolled rail wears out in less than one-quarter the time of cast manganese.

As a result these crossings have to be replaced frequently so that their apparent lower first cost, when compared with that of articulated cast manganese crossings, is deceptive.



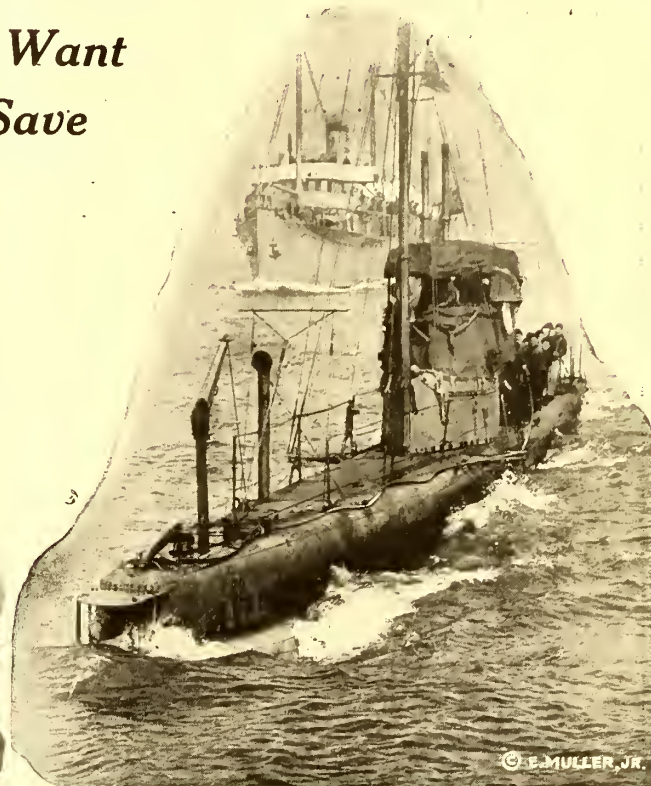
Joints in Balkwill Articulated Cast Manganese Crossings are life savers. They positively prevent breakage at flangeway intersections, permitting 100% wear before renewal is necessary

METER YOUR CAR ENERGY—

*That's What
You Want
to Save*



On Battleships



On Submarines

The Sangamo Economy Meter Is a Rugged Device!

The Sangamo ECONOMY Railway Meter is a rugged, time-tried device, with an excellent record for power saving. This meter has the same element as in the well-known Sangamo d.c. mercury flotation meters for every electrical service. It is of the same design as the element of the meters which control the lighting equipment on all the cars of the Pullman Company and on several steam railways, and on battleships and all the submarines of the U. S. Government. Sangamo mercury meters are standard on the electric trucks of nearly all manufacturers of electric vehicles.

In fact, the mercury meter is widely used wherever there is need for an electrical energy-measuring device that has demonstrated its ability to withstand the punishment of rough usage, including the jarring incident to electric railway operation.

Economy Electric Devices Co.

L. E. Gould, Pres.

Exclusive Sales Agent

Sangamo Economy Railway Meter
Old Colony Bldg., Chicago

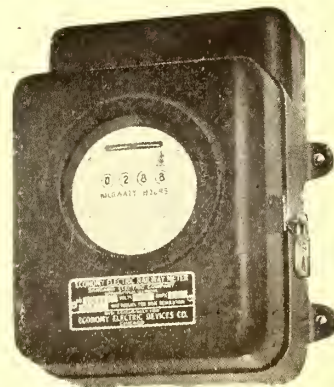
The electrical characteristics of the ECONOMY Meter are guaranteed. Its cost for maintenance as definitely established by one large property over a period of two and a half years, based on the use of 100 meters, is not more than \$1.00 per meter per year.

ECONOMY Meters on your cars will decrease operating costs.

The ECONOMY Meter induces saving by a method which does not encourage practices contrary to "safety first."

It will start paying for itself immediately.

Let us send you further details. Write for our new booklet on Efficient Electric Railway Operation.



"The Watchdog of Your Power"

Repairing and Reclaiming A War-Time Necessity

"The Indianapolis Method"

CONSERVE

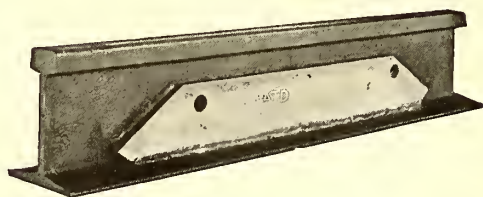
Skilled Labor
New Material
Heavy Overhead
Current Losses



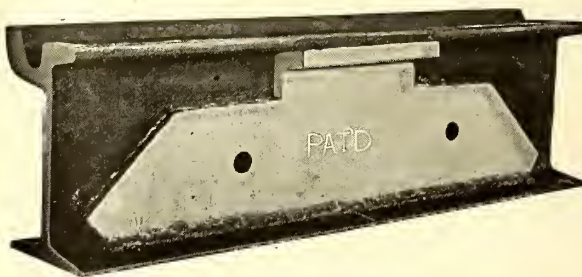
Portable Electric
Welder

RECLAIM

Broken Track
Worn Track
Damaged Frogs
Worn Switches



The "Simplex" Joint
for High Tee Rails



The "Apex" Joint
for Guard and Girder Rails

The ever-increasing prohibitive price of new material—the excessive cost of skilled labor and the shortage of both, present a difficult problem to the roads.

Trains and trolleys must be kept running. Delays must be prevented. Tracks and switches must be kept in perfect condition.

The logical answer is the Indianapolis Portable Electric Welder, the quickest

and most satisfactory of track repairers and reclaimers.

Can be operated by unskilled labor.

Economical in first cost and future maintenance.

Positive in results.

Indianapolis Joints and Bonding Plates are electrically welded and show greater conductivity than the rail itself. They eliminate current losses.

Let us send you full particulars.

95% of the important Electric Railways NOW using Indianapolis Welder and Joint

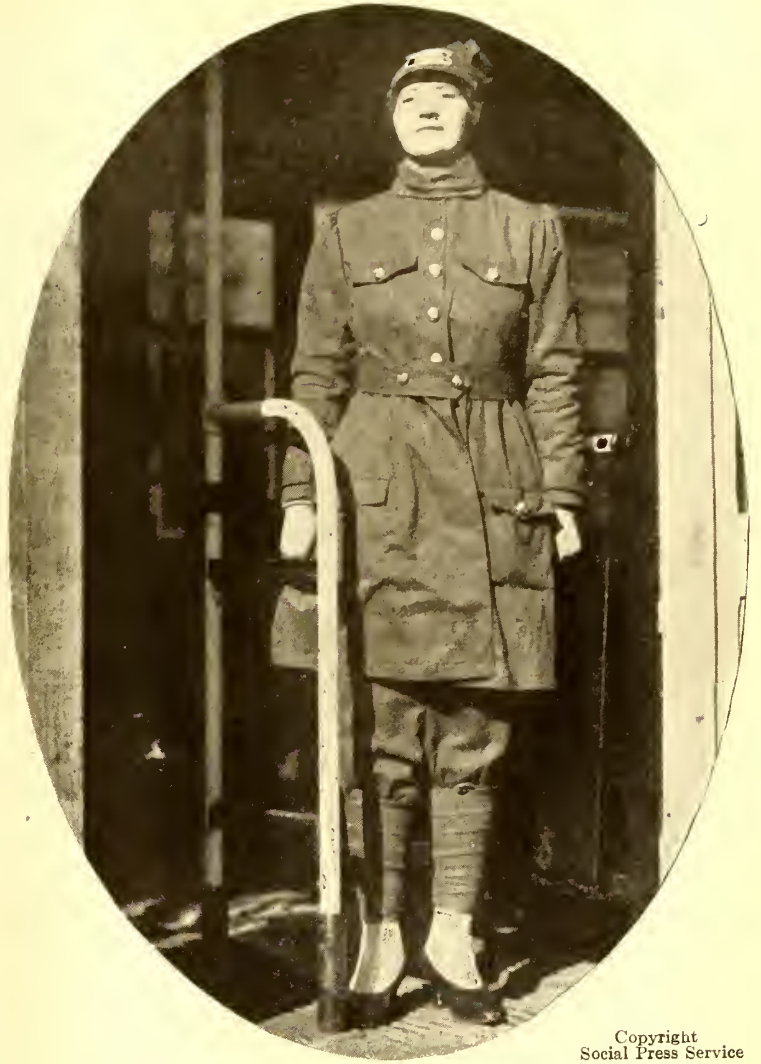
Users of Indianapolis Patented Welders, Joints and Welding Supplies Fully Protected

Indianapolis Switch & Frog Company, Springfield, Ohio

Attention!

America's First Surface Car Conductress
Made Possible by

National Pneumatic Control



Copyright
Social Press Service

Spic, span and smiling she stands ready to fill the gap made by a lad who has gone "over there."

But, fortunately, her employer—the New York Railways—had already made the job of **car cashier** an easy one.

Behind a grill and fare box she will sit at ease, and have full control of all exit and entrance through the use of a foot trip which actuates the National Pneumatic door engines. In fact, she is literally

Queen of the Air

NATIONAL PNEUMATIC COMPANY

INC.

50 Church St. New York

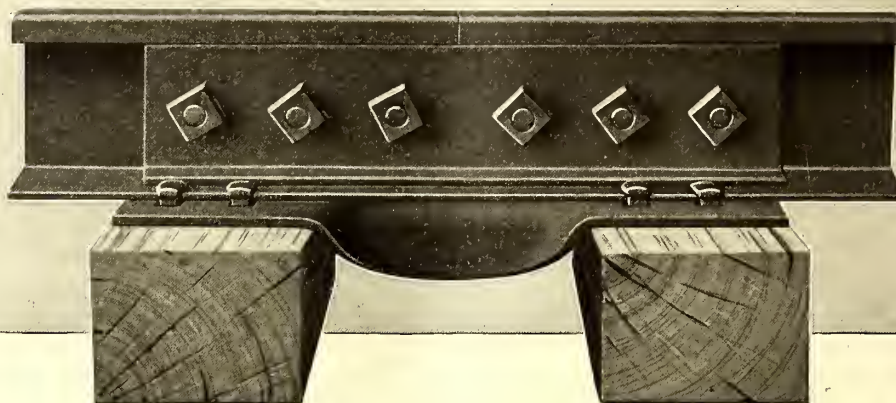


515 Laflin St. Chicago

Flat-ended ABBOTT RAIL-JOINT PLATES



offer the best solution for
the joint problem with
high T or girder rails in
paved streets



THE flat-end pattern of Abbott Plate gives the joint a strong unfailing support that preserves track surface and keeps the rail ends from battering and does so without imposing any obstructions to interfere with paving. The blocks or bricks will fit close against the joint without chopping or the use of special shapes.

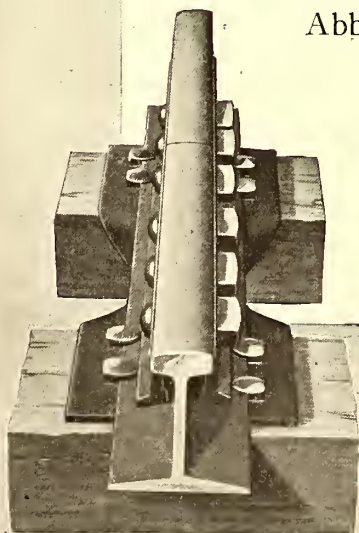
The relief of the splice bars from excessive wheel load greatly prolongs their useful life by reducing the wearing and cutting from back action and also lessens the tendency of holes to shear and nuts to loosen.

Many installations of long standing have demonstrated an appreciable saving in renewals and maintenance costs, to say nothing of the smoother riding qualities of the track.

Abbott Plates are made in patterns and sizes to meet every requirement of new track in electric railway service, and can often be utilized to decided advantage in prolonging the life of old track.

*Write for our Book,
"Improved Track Appliances."*

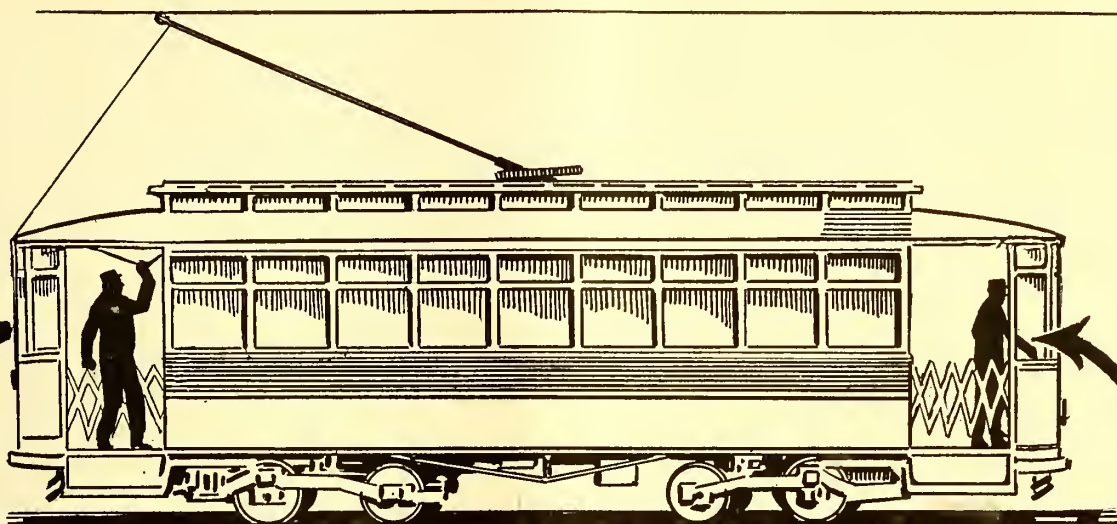
312



Lackawanna Steel Company

LACKAWANNA, N. Y.

ATLANTA CHICAGO DETROIT ST. LOUIS
BUFFALO CLEVELAND PHILADELPHIA
BOSTON CINCINNATI NEW YORK
SAN FRANCISCO HAVANA



It is
hard to get
increased income
here

As long
as there is
unchecked waste
here

When one of your department managers comes to you and says he has to have more money to run things (a mighty common experience nowadays), your first impulse is to try to determine how he can economize, isn't it?

And naturally the public and the Public Service Commissions ask the same question when the electric railways ask for more revenue.

The only decisive answer is to show that you are doing everything possible to lower costs of operation.

You cannot make that answer unless you have *some* means of showing that your car crews are being led to use the minimum amount of power necessary to first-class operation.

There are many ways of doing this. It is our belief that

The Arthur Power-Saving Recorder

is a successful, economical and efficient way.

That belief is also held by experienced railway men who are using the Arthur Recorder on their cars.

You might not agree with this opinion, but you certainly owe it to yourself to be sure that you know all the facts before you reach your conclusion.

The Arthur Power-Saving Recorder Co.
Second National Bank Building, New Haven, Conn.



BECAUSE of the many requests that we have received asking us to rent our DYNAMOTOR for rail bonding, shop-welding and building up cupped rails, we have inaugurated a selling plan whereby small monthly payments may be made; all rent to apply on the purchase price, if it is decided later to keep the machine.

The superiority of the LINCOLN DYNAMOTOR, from the standpoints of efficiency and economical operation, has been demonstrated by many street railway companies. The monthly saving by using our DYNAMOTOR will amount to more than three months' rental.

This is an opportunity for you to equip properly for rail bonding, shop welding and repair work, without having to charge the entire price of a machine to your operating expense or machinery investment account. Just place us on your payroll.

Full details regarding the plan will be given you if you fill in and return the coupon.

THE LINCOLN BONDING COMPANY

General Offices: CLEVELAND
New York Office: 30 Church St.

AGENTS:

BOSTON, Chas. N. Wood Co.
PHILADELPHIA, Railway Track-work Co.
PITTSBURGH, Electrical Engineering & Manufacturing Co.
CHICAGO, Holden & White, Inc.
ST. LOUIS, W. L. Rose Equipment Co.
CANADA, Lyman Tube & Supply Co., Ltd., Montreal, Toronto, Winnipeg.

This is an exceptional opportunity for you—get busy!

The
Lincoln
Bonding Co.
Cleveland, O.

Please give me details of your new rental plan for Lincoln Dynamotors.

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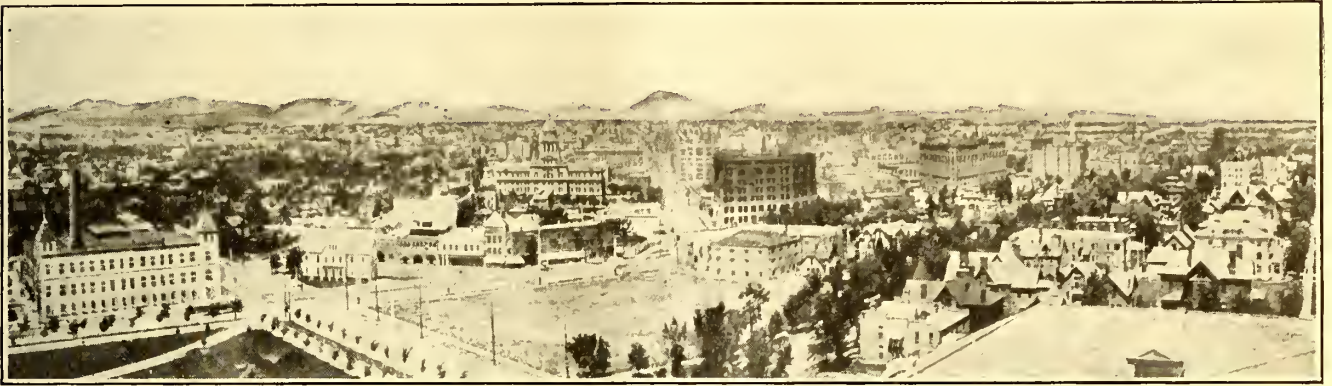
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Denver as seen from the Capitol Site—1870.



Denver as seen from the Capitol Dome—1902.

Denver, the Beautiful—originally called "Auraria," "The Land of Gold" (now West Denver) and St. Charles (Denver proper).

"Pike's Peak or Bust!"

the great rallying cry of the gold hunters of 1858, proved a false slogan, for no gold has ever been found in the immediate vicinity of the Peak itself.

When the first batch of prospectors in this region found that signs of gold were few and far between a reaction set in and the tide of migration flowed back from Denver eastward and southward, stemming the westward tide and causing vast disappointment among those who believed these stories and turned back after coming within easy distance of their goal.

Horace Greeley, of the *New York Tribune*, set out to see for himself what the conditions were, and his truthful reports restored the confidence of the people in the ultimate prosperity of the new territory.

On June 6, 1859, Greeley reached Denver (the name had just been adopted in honor of Governor James W.

Denver, of Kansas, whose territory at that time included Colorado). He put up at the "Eldorado Hotel" and there became the chief actor in the famous \$5 shave—the story of which traveled all over the world and did more to make Denver famous than all the optimistic tales of the years before.

A year later occurred the great attack by outlaws on the *Denver News*, and for months afterwards, editors, reporters and "comps" worked with revolvers close at hand and Winchester rifles on their desks and across their type cases. Silver and other precious metals finally were discovered in quantity; the city grew rapidly and became a Mecca for the ailing and weak, whose health was rebuilt in the rarified atmosphere of the Mile-High City. Transportation facilities kept pace with the growth of the community and, despite a few early disappointments, reached a high state of efficiency.

Galena Oils

in the dry, rarified atmosphere of mountain districts give the same satisfactory results as in the dense humid air along the seashore, while Galena Service through its national organization reaches into the farthest corners of the United States with the same efficiency and reliability as it does in the immediate neighborhood of our refineries.

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Franklin, Pa.

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*Southwest General Electric Company. For Canadian Business refer to Canadian General Electric Company, Ltd., Toronto, Ont.
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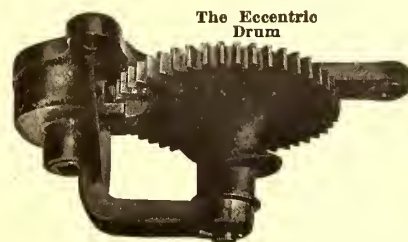
And if you were to ask what trouble does the Peacock give, you would learn that there's no such animal.

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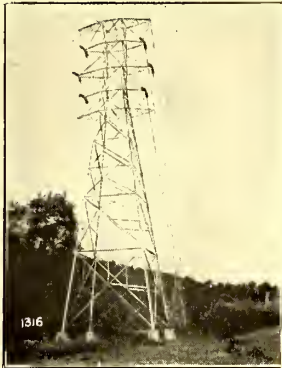
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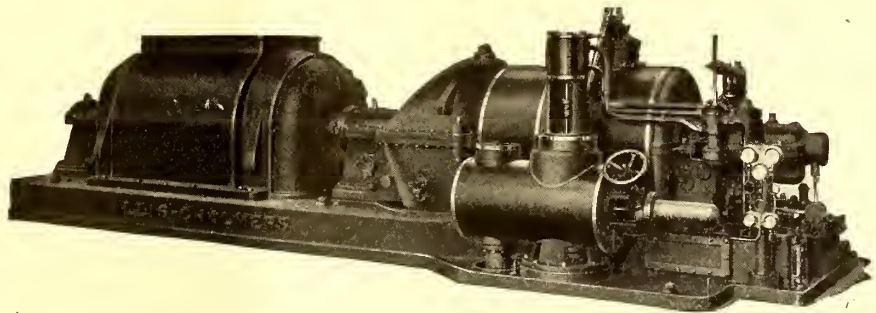
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The chances are that if your maintenance methods do not include the consistent and regular use of a

RECIPROCATING TRACK GRINDER

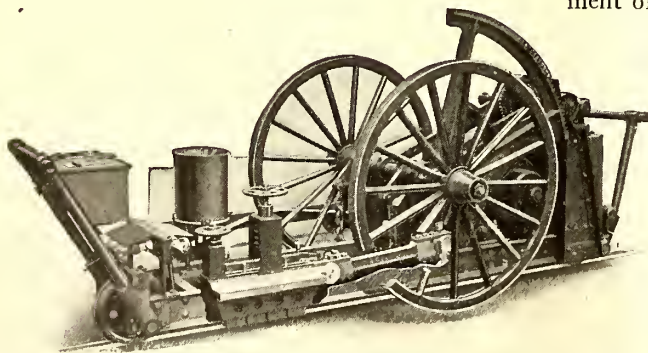
for grinding out bad spots and keeping rails smooth you can add to your present methods the cost of equipment and labor for that purpose

Without Adding to Your Annual Cost per Mile

Cupped joints and corrugations are not damaging merely to the rail and rolling stock. They also are the direct cause of much damage to the *track structure itself*.

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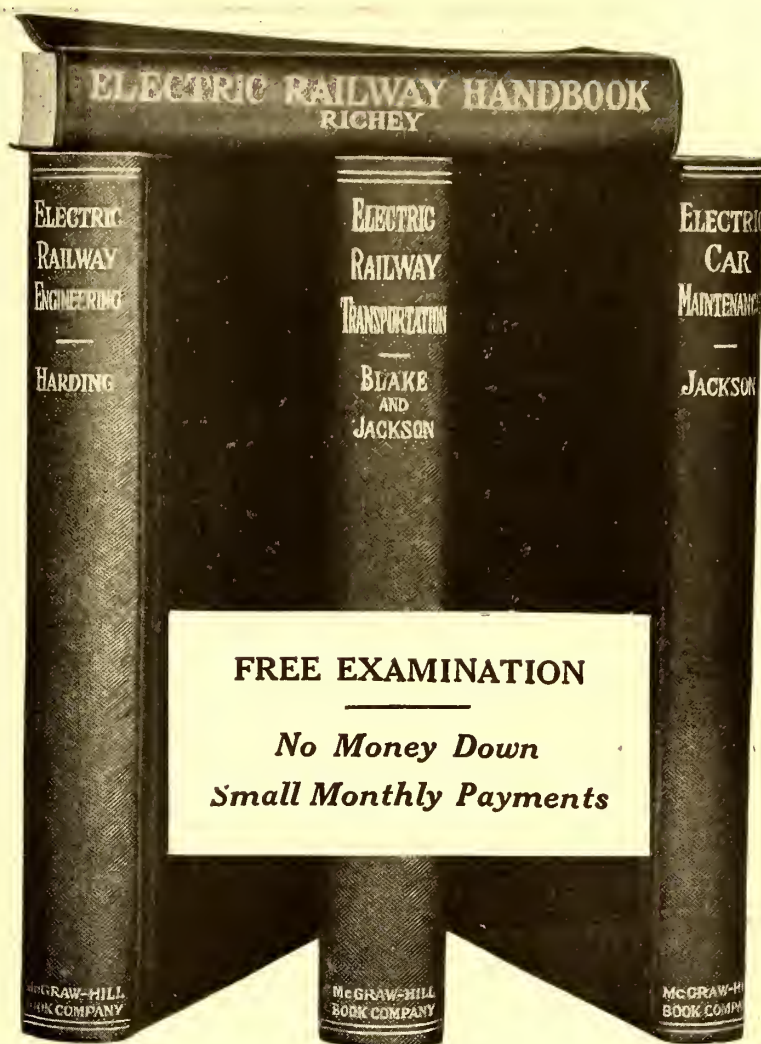
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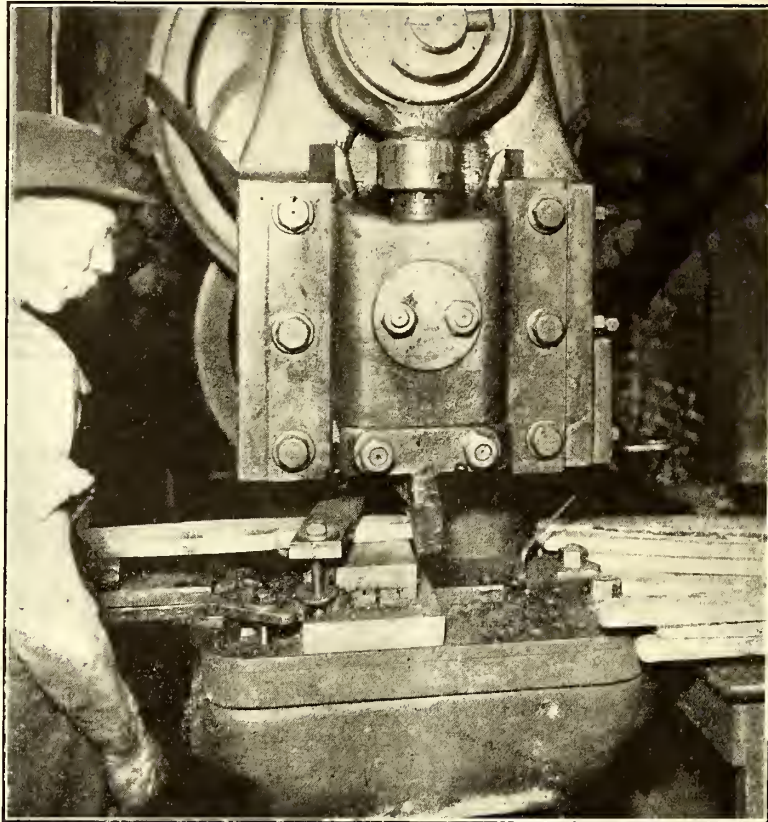
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at Savannah

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If railway men in general will study the question of wood durability for other uses as carefully as Railway Signal men have studied it in connection with "Trunking and Capping," there will be a lot more all-heart Cypress used in railway service—to the *very great economy of the companies using it*.

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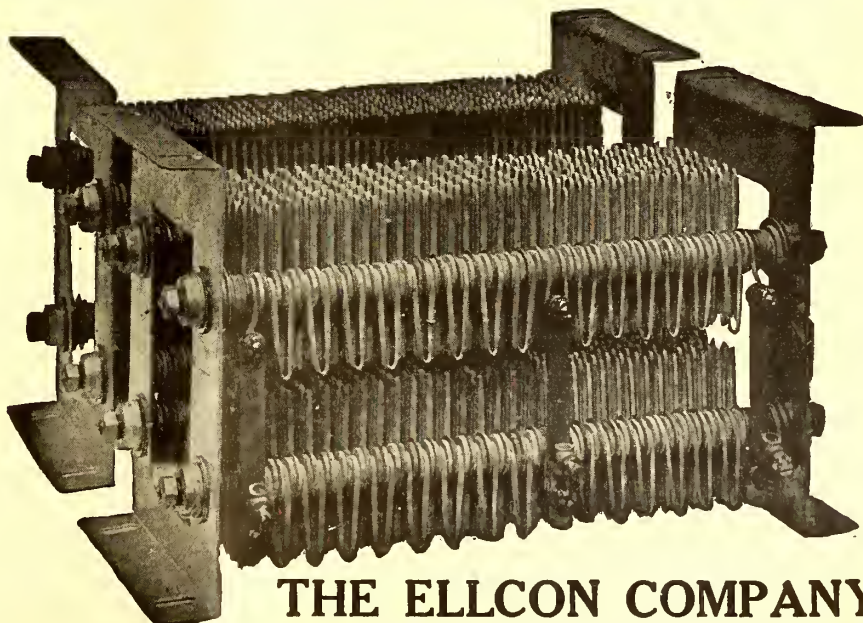
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E M B grid resistors actually have made this part of your equipment troubleproof.



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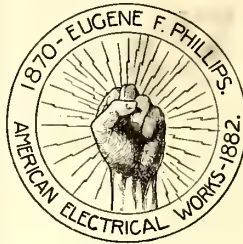
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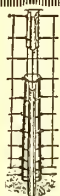
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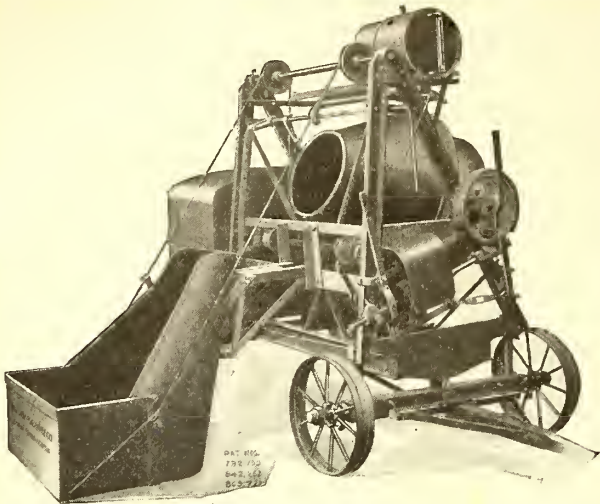
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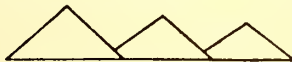
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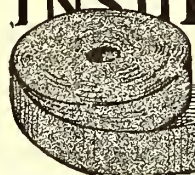
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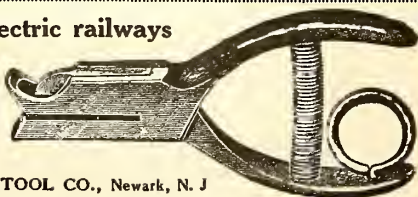
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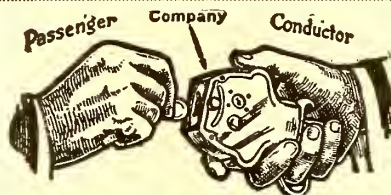
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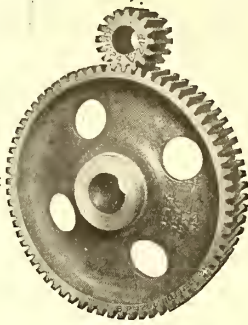
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STATE OF MAINE

Knox, ss. Supreme Judicial Court
In EquitySecurity Trust Company
vs.Rockland, South Thomaston & St. George
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85 lb. A. S. C. E. Relayers

16,000 tons—with Angle Bars to match. Available immediate shipment and centrally located.

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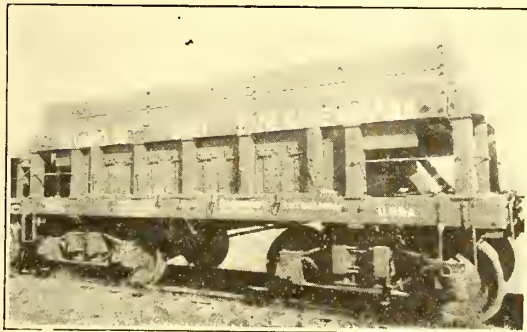
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25
Side dump
Ballast Cars,
just rebuilt,
66,000 lb.
with
sideboards,
24 yd.

Have new boards, bolts, posts for all 25 cars. Standard gage; 24 ft. outside overall. Inside total, 17 ft. Degree incline, 45 per cent.; over body, 22 per cent. Incline bottom, 3 ft. Flat bottom, 11 ft. Width overall, 8 ft. 10 in.; inside, 7 ft. 11 in.; rail to top, 7 ft. inside, 3 ft. Rail to top floor, 4 ft. Independent dump. Doors, 16 x 28 in. Westinghouse brakes. Steps and Grab Irons all M.C.B., standard. Four doors each side. Tower steel couplers, 5 x 5 shank. Total wheelbase, 19 ft. 4 in., 33-in. cast wheels. 9 x 11 wood bolsters. National hollow steel brake beams. 8 x 10 malleable journal boxes. Weight, 21,500 lb. Truck wheel base, 5-ft. twin full elliptic springs hung inside. 4 1/2 x 8 journal brasses. Cars take 42 ft. radius curve, coupled M.C.B. Painted; fine condition. Cash price, \$650 each.

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Small way stations, car barns, scales, etc.

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Under and by virtue of decree in the above-entitled cause made on the twenty-first day of June, 1918, and filed in the office of the Clerk of Courts, Knox County, Maine, the undersigned Receiver, being thereunto duly authorized and directed, will receive bids in accordance with the terms and conditions of said decree, bids to be received by the Receiver at his office, 414 Main Street, Rockland, Maine, not later than twelve o'clock noon,

July 23, 1918

for the following property: All and singular, the real estate, buildings, road-bed, privileges, tracks, poles, lines, wires, material, machinery, equipment, tools, implements, supplies, property rights, easements, appurtenances and franchises, and all contracts and choses in action belonging to said Railway.

The aforesaid premises, property and franchises will be sold without valuation or appraisement. The Receiver will receive sealed bids for the property as an entirety or for any part or parcel thereof, as scheduled, with the right to reject any or all bids; each bid to be accompanied by a certified check for ten per cent. (10%) of the amount of the bid. Property will be sold free from all liens and claims of every character and of every name and nature whatsoever. No bid will be received by said Receiver from any person who shall not accompany his bid with a certified check for ten per cent. (10%) of the amount of the bid as a pledge and as part payment on account in case his bid is accepted. Deposits so received from unsuccessful bidders will be returned; that received from a successful bidder retained to be applied to the purchase price or forfeited in case the bid shall not be made good or the purchaser shall fail to comply with any order of Court relating to the payment for said property when and after said sale shall be confirmed; if sale not confirmed, deposit returned to bidder. Sale to be made subject to confirmation by the Court. Court reserves the right to re-sell the property in case the purchaser shall fail to make payments as required on confirmation of sale. Condition of sale more fully set forth in said decree, and title to be given in accordance therewith. All the above sold, condition and completeness as is; as seen and inspected; and as now located. By said decree all claims to said property and liens thereon are transferred to the funds derived from said sale, and the rights of all parties making such claims are to be adjudicated in the receiver-ship proceedings and protected in the distribution of the funds. Brief schedule will be furnished by Receiver.

Dated at Rockland, Maine, June 21, 1918.

S. THAYER KIMBALL,

Receiver

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Machine Wood Workers and Coach Carpenters

Good wages. Permanent. State experience. **MOBILE LIGHT & RAILROAD CO.** Mobile, Ala.

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100 ton 7-in., 70-lb. Shanghai Relayers.
125 ton 9-in., 90-lb. Girder Relayers.
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MECHANIC to take charge of barn on small Interurban and City property wanted. Must be able to handle all barn and shop work. P-190, Elec. Ry. Journal, Cleveland.

AUDITOR and office manager for small city and suburban electric railway in growing community. Must have experience in I. C. C. Classification and be a live wire. Give full details in first letter. P-191, Elec. Ry. Journal, Cleveland.

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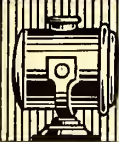
Salesman Wanted
Young man with engineering training, to sell steam and street railway track work. State salary expected and all details in first letter. AS-188, Elec. Ry. Journal, Chicago.

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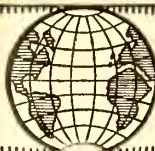
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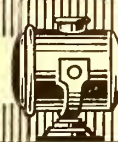
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SEARCHLIGHT



SECTION



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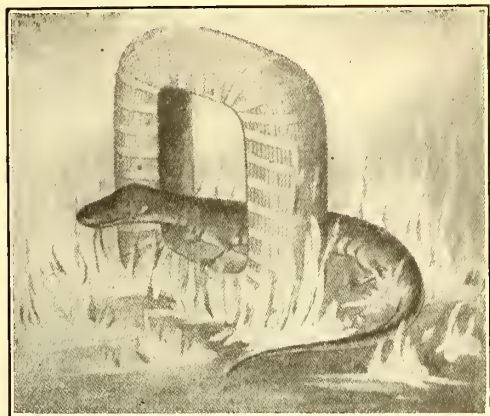
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Pinlons. (See Gears.)

Pins, Case Hardened, Wood and Iron.

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Electric Service Supplies Co.
Ohio Brass Co.
Westinghouse Traction Brake Co.

Pipe.

National Tube Co.

Pipe Fittings.

Power Specialty Co.
Standard Steel Works Co.
Westinghouse Traction Brake Co.

Planers. (See Machine Tools.)

Pliers, Insulated

Electric Service Supplies Co.
National Railway Appliance Co.

Pole Reinforcing.

Hubbard & Co.

Pole Sleeves.

Drew Electric & Mfg. Co.

Poles and Ties, Treated.

Lindsley Bros. Co.

Poles, Metal Street.

Hubbard & Co.

Pole Sleeves.

Drew Elec. & Mfg. Co.

Poles, Ties, Posts, Piling and Lumber.

Carney & Co., B. J.
Lindsley Bros. Co.
Northern White Cedar Assn.
Southern Cypress Mfrs. Assn.
White Marble Lime Co.

Poles, Trolley.

Anderson M. Co., A. & J. M.
Columbia M. W. & M. I. Co.
Electric Service Supplies Co.
National Tube Co.
Nuttall Co., R. D.

Poles, Tubular Steel.

National Tube Co.

Power Saving Devices.

Arthur Power-Saving Recorder Co.
Railway Improvement Co.

Pressure Regulators.

General Electric Co.
Ohio Brass Co.
Westinghouse Electric & Mfg. Co.

Pumps

Allis-Chalmers Mfg. Co.

Punches, Ticket.

Bonney-Vehslage Tool Co.
International Register Co., The
Wood Co., Chas. N.

Purifiers, Feed Water

Scaife & Sons Co., Wm. B.

Rail Grinders. (See Grinders.)

Rail Welding. (See Brazing and Welding Processes.)

Rails, Relaying.

Zelnicker Supply Co., W. A.

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Rattan.

Brill Co., The J. G.
Electric Service Supplies Co.
Hale & Kilburn Co.
McGuire-Cummings Mfg. Co.
St. Louis Car Co.

Recorders, Power Saving.

Arthur Power-Saving Recorder Co

Registers and Fittings.

Bonham Recorder Co.
Brill Co., The J. G.
Electric Service Supplies Co.
International Register Co., The
Rooke Automatic Register Co.

Reinforcement, Concrete.

American Steel & Wire Co.

Repair Shop Appliances. (See also Coil Banding and Winding Machines.)

Columbia M. W. & M. I. Co.
Electric Service Supplies Co.

Repair Work. (See also Colls.)

Cleveland Armature Works.
Columbia M. W. & M. I. Co.
General Electric Co.
Independent Lamp & Wire Co.
Westinghouse Elec. & M. Co.

Replacers, Car.

Columbia M. W. & M. I. Co.
Electric Service Supplies Co.
Reading Specialties Co.

Resistance, Grid.

Columbia M. W. & M. I. Co.
Elcon Co.

Resistance, Wire and Tube.

General Electric Co.
Westinghouse Elec. & M. Co.

Retrievers, Trolley. (See Catchers and Retrievers, Trolley.)

Rheostats.

Elcon Co.
General Electric Co.
Westinghouse Elec. & M. Co.

Roofing, Building.

Barrett Co., The
Johns-Manville Co., H. W.

Roofing, Car.

Johns-Manville Co., H. W.

Sanders, Track.

Brill Co., The J. G.
Columbia M. W. & M. I. Co.
Electric Service Supplies Co.
Holden & White, Inc.
Nichols-Lintern Co.
Ohio Brass Co.
St. Louis Car Co.

Sash Fixtures, Car.

Brill Co., The J. G.

Sash Metal, Car Window.

Hale & Kilburn Co.

Scrapers, Track. (See Cleaners and Scrapers, Track.)

Seats, Car.

Brill Co., The J. G.
Hale & Kilburn Co.
St. Louis Car Co.

Second-Hand Equipment. (See Searchlight Section)

Archer & Baldwin.
MacGovern & Co., Inc.

Shades, Vestibule.

Brill Co., The J. G.

Shovels.

Hubbard & Co.

Shovels, Power

Allis-Chalmers Mfg. Co.

Signal Systems, Block.

Electric Service Supplies Co.
Federal Signal Co.
Nachod Signal Co., Inc.
U. S. Electric Signal Co.
Wood Co., Chas. N.

Signals, Car Marker

Nichols-Lintern Co.

Signals, Car Starting.

Consolidated Car Heating Co.
Electric Service Supplies Co.
National Pneumatic Co.

Signal Systems, Highway Crossing.

Nachod Signal Co., Inc.
U. S. Electric Signal Co.

Slack Adjusters.

(See Brake Adjusters.)

Sleet Wheels and Cutters.

Anderson Mfg. Co., A. & J. M.
Columbia M. W. & M. I. Co.
Drew Electric & Mfg. Co.
Holden & White, Inc.
More-Jones Brass & Metal Co.
Nuttall Co., R. D.

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Brill Co., The J. G.
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Consolidated Car Fender Co.
McGuire-Cummings Mfg. Co.

Solderless Connectors.

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(See Welding, Processes and Apparatus.)

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Lackawanna Steel Co.

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Westinghouse Elec. & Mfg. Co.

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Bemis Car Truck Co.
Brill Co., The J. G.
Standard Steel Works Co.
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Stokers, Mechanical.

Babcock & Wilcox Co.
Green Engr. Co.
Westinghouse Elec. & M. Co.

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Strand

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Holden & White, Inc.

Structural Iron. (See Bridges.)

Superheaters.

Babcock & Wilcox Co.
Power Specialty Co.

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Switches, Lock.

Weiss Switch Lock Co

Switch Stands.

Indianapolis Switch & Frog Co.
Kilby Frog & Switch Co.
Ramapo Iron Works.

Switches, Track. (See Track, Special Work.)

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Anderson Mfg. Co., A. & J. M.
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General Electric Co.
Nichols-Lintern Co.
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Elec'l Testing Laboratories.

Testing Instruments. (See Instruments, Electrical Measuring, Testing, etc.)

Thermostats.

Consolidated Car Heating Co.
Gold Car Heating & Lighting Co.
Railway Utility Co.
Smith Heater Co., Peter.

Ticket Choppers & Destroyers.

Electric Service Supplies Co.

Ties, Mechanical.

Dayton Mechanical Tie Co.

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American Bridge Co.
Barbour-Stockwell Co.
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International Steel Tie Co.

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Oxweld Acetylene Co.

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Archbold-Brady Co.
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Kilby Frog & Switch Co.
New York Switch & Crossing Co.
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General Electric Co.
Westinghouse Elec. & M. Co.

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General Electric Co.
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Holden & White, Inc.

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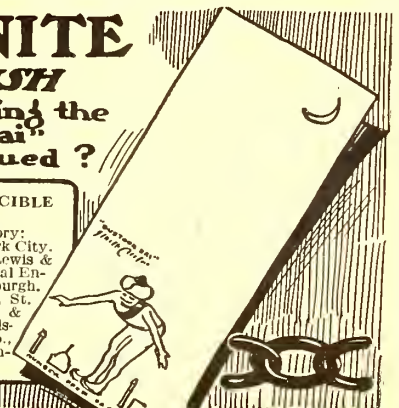
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National Tube Co.

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More-Jones B. & M. Co.
Nuttall Co., R. D.
Star Brass Works.

Whistles, Air.

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Ohio Brass Co.
Westinghouse Traction Brake Co.

Wire Rope.

American Steel & Wire Co.
Roebbling's Sons Co., John A.

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American Elec'l Works
American Steel & Wire Co.
Bridgeport Brass Co.
D & W Fuse Co.
General Electric Co.
Roebbling's Sons Co., John A.
Westinghouse Elec. & M. Co.

Woodworking Machinery

Allis-Chalmers Mfg. Co.

Wood Preservatives.

Lindsley Bros. Co.

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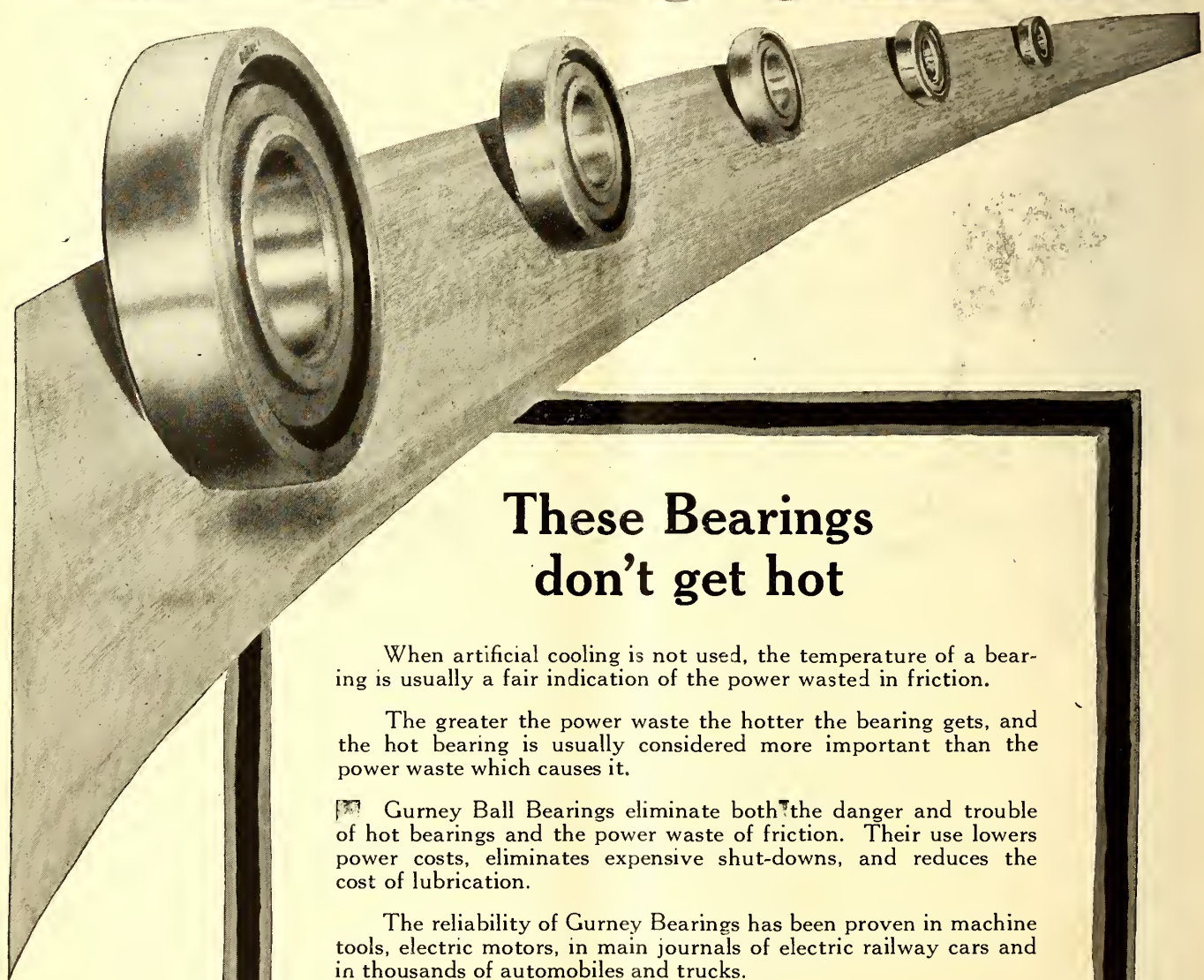


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