OFFICE ON RAILROAD ROW.

The Heavy and Constantly Increas-

ing Traffic From This Field Calls for Larger Quarters.

Portland, as the greatest railroad ter-

minal center on the Pacific Coast, is re-

celving the recognition of the passenger

departments of all the leading trunk lines that have any direct connection with the leading roads that reach tidewater on the Facilic Coast. The railroad offices of

Pacific Coast. The railroad offices of Portland today compare favorably in appearance with the offices of Denver and San Francisco. No better evidence of Portland's rapidly increasing importance in the railroad world is found than is afforded in the demand the business of the city is constantly making on the passenger and freight departments of all the railroads that have interests here, for larger and better equipped office quarters. Mr. H. L. Sisier, general agent of the "North-Western Line." has just made the announcement to the friends and patrons of his road that his new office at 12 Third street will be formally opened for the inspection of the public on Monday next. The new location on Third street, between Washington and Alder, is in the center of Railroad Row, and in the heart of the best business district of the city.

of the best business district of the city. The individuality of the popular "North-Western Line" marks everything put out by this road, from the handsome menu on

the dining car of the famous "North-Western Limited," to the finished appear-ance of their fast trains, made up as these trains are of the best-finished and best-

appointed cars run over any road in the United States. The counter, partitions, all the woodwork, the furniture, and the dec-orative work on the walls of the new offices are all in the rich "North-West-

offices are all in the rich "North-West-ern" style. The growth of Portland's business during the past two years has warranted the "North-Western" manage-ment in authorizing heavy expense of opening the new Portland office. The company has every confidence in the fu-ture rapid growth of Portland's rail

traffic.
The "North-Western" has the shortest line between St. Paul and Chicago. The line between St. Paul and Chicago. The

line between St. Paul and Chicago. The distance between the two points over this

route is 400 miles. The shortest competing line covers a distance between St. Paul and Chicago of 406 miles. The "North-Western Limited" operated over this route daily is one of the finest trains in the world. Over one-half the entire distance of this route the line is double-tracked. The entire distance of 400 miles.

tracked. The entire distance of 400 miles over this route will be double-tracked in the immediate future. The striking headlines that have made

the "North-Western" famous are reproduced in the decorations of the new Portland office. Among the most noticeable of these lines is the well-known "The

of these lines is the well-known "The Short Line, St. Paul to Chicago," and "The Best of Everything." Mr. H. L. Sisier, the able general agent of the "North-Western" in Portland, suc-ceeded the late W. H. Mead on July 1

last. Mr. C. J. Gray, formerly with the C., St. P., M. & O. Co. at St. Paul, is assistant to Mr. Sisler at the local head-

SUNDAY SCHOOL WEEK.

Workers in This Field to Hold a

MUNICIPALISM IN ENGLAND

FROM HARPER'S WEEKLY # BY SYDNEY BROOKS

Weekly, March 14, 1993.

I showed that sentence to an English member of Parliament, who has been twice Mayor and for over ten years a councilior or Alderman of one of the large at a councilior or Alderman of one of the large at councilior or Alderman of one of the large at councilior or Alderman of one of the large at councilior or Alderman of one of the large at cities in the Kingdom. His comment was startling. "Happy Americal" he exclaimed. "Long may she remain so." He went on to make a vigorous attack on the excesses of modern "municipal enterprise." The old form of it, the form known as "gas and water socialism." he approved. Experience had convinced him that there were certain undertakings which, being monopolistic in their nature, and vitally bearing on the health or affect or necessary comforts of the people, could be more efficiently and more conomically controlled by a municipality than by a private company. He could not and no more, he declared, could any one else, lay down hard and fast lines as to the sphere in which municipal enterprise might legitimately move. Local conditions, as it seemed to him, could alone determine that. But he thought it unquestionable that when a municipality branched out into all sorts of minor trades of a speculative and even experimental character, incurred immense liabilities in prosecuting them, and raised local taxastion to an aimost unbearable height, a point was reached where it became a matter of principle and common sense to call a hait. That point, in his opinion, England had not only reached, but passed, "have gone crasy over municipality is and the proposed the mationalization of the Pennsula," have gone crasy over municipality in the future in embryo, and the men who compose them, whether they know it insent domain." Glasgow, moreover, is only one of many who compose them, whether they know it insent domain." Glasgow, moreover, is only one of many and compose them, whether they know it insent domain." Glasgow, moreover, is only one of many and compose them, wh ism of the future in embryo, and the men who compose them, whether they know it or not, are playing the game of the Social-

ter of municipal ownership. That is why

DO METALS SUFFER FROM DISEASE?

AND STEEL GET SICK

GERMAN SCIENTISTS BELIEVE THAT IRON, COPPER

initiative as will work our commercial

"As regards municipal ownership, we are a bundred years behind Great Britain."—Harper's gas, electric light, cable and electric cars, and telephones; they control il public parks and galleries, il baths and

-an extreme, but by no means unique, example of what is going on all over the kingdom. The Times correspondent found who compose them, whether they know it or not, are playing the game of the Socialists to perfection. Of course, socialism is to perfection. Of course, socialism of "enterprise" wherever he looked, thus lost a good many of its terrors. "We are all Socialists now," as Harcourt said. But there is one thing that has not lost for bables is supplied. The local governing its terrors, and that is bankruptcy. If authorities not only furnish the milk, but municipal speculation goes on at its presmunicipal speculation goes on at its pres-ent rate, it is my opinion we must either end in a sort of local bankruptey or else in such a widespread atrophy of private their cleanliness may be tested. From this intervals to the municipal milk store that their cleanliness may be tested. From this to the municipalization of the entire milk supply is only a moderate step. It has not ruin. That is why, as a lifelong friend and admirer of America, I am glad to hear she is 100 years behind us in the matyet been taken, but sooner or later it in-evitably will be. Several local governing authorities run saloons. Several others I say, 'Long may she refinal so.'"

One hears opinions like this expressed on all sides nowadays. I do not think it would be too much to say that the intelligent public spirit of this country is preparing for a revolt from the extremes of the "new municipalism." Ratepayers' do town tubes of serum are prepared out of fense clubs, property-owners' associations, efficiency unions, industrial protective so. citizens' unions, industrial protective so-cleties, and so on, are multiplying all over the Kingdom, and endeavoring to arouse the average respectable citizen, whose apathy is at the root of mischief, into aparty is at the root of mischiet, into account. The control of local markets are now aviity leading to multiplied to the Times during the Summer and Fall of last year han nicipal slaughter-houses, municipal ice factories. ment. It is not an impossible undertak-ing, but it is an exceedingly arduous one—how much so may be eathered from studying the example of Glasgow. Glas-municipal water-works, and the profits quay breeds rabbits on a large tract of land where water is collected for the ying the example of Glasgow. Glasprides itself on being the model
dispality of Great Britain. It is, at
rate, the most active. The Corporathat is to say, the City Council—
that is to say, the City Council—
that is to say, the City Council—

"The prior that a municipal water-works, and the profits
from the sale of them goes to reducing
the rates—the experiment having answered
will understand why
America her 109 years'
gone in for sheep farming: Tunbridge
London, April 4, 1992.

Wells grows hops, and Liverpool bestroots on their sewage farms; at Colchester there are municipal oyeters, which those who have never tasted an American oyster may conceivably relish; Brighton and several other towns own racescourses; a few have built theaters; West Ham not only manufactures its own paving-stones, but sells its eurplus to contractors; many local authorities drive a good business in the residual products of gas-Manchester, for instance, trading in soap, oil, tallow and mortar; most of the corporations that supply gas are prepared also to furnish stoves and all the necessary fittings; Sheffield undertakes plumbing work, as a side issue to furnishing water; Liverpool has a municipal tailoring establishment, where the uniforms of the town officials waers the uniforms of the town officials and employes are made; Battersea cute all the timber required for municipal buildings and street paving in its own sawmili; Cardiff does the same; Manchester manufactures for itself all the wagons, brooms and brushes needed by the local street cleaning department; the Westminster City Council at the time of

the coronation set up as seat speculators, and got most handsomely "left"; a good many local authorities provide hands in the parks, organ recitals, and free municipal concerts; Nottingham runs both a university college and an aviary; the Lon-don County Council makes a free distribution of plants at the end of each Summer season; Glasgow, Liverpool and Liccoster provide window-boxes filled with flowers for cottages in the poor and crowded districts; Blackpool, a seaside resort, spende thousands of pounds a year on advertising its charms and subscribes considerable sums to the local "attractions"; Harrow-

Westminster City Council at the time of

gate goes one better by offering visitors municipal displays of fireworks; at least a score of local authorities own golf links and cycle tracks, and, on a somewhat higher plane, schemes are constantly be-ing put forward for municipal insurance offices, municipal banking, and municipal ownership of coal mines and canals. Side by side and intimately connected with all this are to be noted a prodictious

expansion of municipal indebtedness-it now stands at well over \$1,500,000,000— and an increase in local rates almost as great. The way in which local authorities plunder manufacturers, industrial com-panies, well-to-do traders and property owners that some fresh municipal enterprise may be undertaken is almost incredfible. The question of local rates is be-coming as formidable to British industry as the question of trade unionism. Moreover, it is a fact that the "new municipalism" is the direct outcome of the con-certed movement which English trade unionists, socialists and labor men have organized for the capture of the local authorities. They have pushed forward this movement with an electioneering skill worthy of an American campaign man-ager. One result of their irruption into ager. One result of their irruption into City Councils is that the best type of men are ceasing to interest themselves in local affairs; another is that while the range of municipal netivity is constantly widening, its efficiency is an steadily deterior. ating. At the same time a bureaucracy of municipal office-holders is being solid-ly formed, and even the municipal employes are now a sort of trade union on their own account. Add to this the un-fairness of a local authority competing with and finally crushing private traders and professional men, add the paralyzing effect on invention and initiative, add

further the recklessness with which wild-cat schemes are plunged into and the ex-travagant inefficiency with which they are usually prosecuted, add finally the sus-picion that a municipal balance sheet needs as close a scrutiny as a prospectus from Mr. Whitaker Wright's pen, and you will understand why Englishmen envy America her 100 years' backwardness.

Convention Next Week. The Oregon State Sunday School As-

between animal life and plant life, so it appears possible mow to find a bridge between the lower phases of plant life and the so-called inorganic or dead world.

The "Life" of Metals.

To the layman the fact that metals can be treated indefinitely by heat without destruction seems naturally to prove that

als have opened a new world for the metallurgist—a word full of marvelous, almost fairy-like, possibilities.

The first striking discovery that was made is that metals suffer from diseases. They become sick, and their strength or hardness or elasticity will vanish mysteriously, and not from the ordinary causes the metalworkers. Through all the ages of metalworkers. Through all the ages of metalworking until now, these curious weakenings and unexpected defects in apparently sound, high-grade metals have been set down as "flaws," and even scientists accepted this as an all the conversion of iron or steel all the conversion of iron or steel ing. And the conversion of iron or steel ing. And the conversion of iron or steel in the process has been the process has been they can possess the attiribute which is called "life." But the whole course of plant life depends on temperature and if it. But the whole course of plant life depends on temperature and is called "life." But the whole course of plant life depends on temperature and is called "life." But the whole course of plant life depends on temperature and is called "life." But the whole course of plant life depends on temperature and is called "life." But the whole course of plant life depends on temperature and is called "life." But the whole course of plant life depends on temperature and is called "life." But the whole course of plant life depends on temperature and is called "life." But the whole course of plant life depends on temperature and is called "life." But the whole course of plant life depends on temperature and is called "life." But the whole course of plant life depends on temperature and is called "life." But the whole course of plant life depends on temperature and is called "life." But the whole course of plant life depends on temperature and is called "life." But the whole course of the Sunday evening, May 10, a mass meet-the called "life." But the whole course of the sunday have suffered in its called "life." But the whole course of the sunday

present.
Tuesday evening the Multnomah County Sunday School Association will tender a reception to their guests and all delegates to the convention in the parlors of the First Presbyterian Church.

of the First Presbyterian Church.
On Wednesday, May II, an all-day
Field Workers' conference will be held
in Grace Methodist Episcopal Church,
and this will include all state and county
association officers. All Sunday school superintendents are invited to this conference. Mr. Pearce will preside and be assisted by Mrs. Barnes and Mr. Charles R. Fisher, of California.

Wednesday evening the convention proper will open at the First Christian Church and continue throughout Thursday and Friday. Mr. Pearce comes from Chicago, is one

of the vice-presidents and also one of the central committee of the Field Workers' department of the International Sunday School Association, and has been a scader in Sunday school work in Illinois. Mrs. J. Woodbridge Barnes comes from Newark, N. J., and is secretary of the primary and junior department of the international Sunday School Association. She is the peer of any worker in this line in America. Mr. Charles R. Fisher comes from

Oakland, Cal., and is the general secre-tary of the California Sunday School As-sociation. He is a new man in the Sunday school work on the Pacific Coast, Other out-of-town speakers who will take part in the convention are President H. E. McGraw, of Pacific College; President J. H. Coleman, of Willamette Uni-versity, and Mrs. S. A. Lowell, of Pen-

ORGANIZED LABOR. From Independence to Dependence, Happiness to Unhappiness.

PORTLAND, April 30,-(To the Editor.)-Such are the conditions of respectable me-chanics before and after the present labor troubles. I say respectable ics, as they are the only ones deserving sympathy, and are the only ones that suf-fer under the present condition of the la-bor disputes. The chief aim of most people is to accumulate wealth. We cannot all be rich, and when wealth is obtained, what good does it do? Money is of use only for the good that can be obtained by the spending of it judiciously, but many capitalists employ their money in invest-ments for the accumulation of additional wealth, and in their wills endeavor to con-

trol it after death.

I did not start this communication to abuse the capitalist, for a man can be rich and yet do some good in this world, as many do. If I were rich I might have the same inclinations that seem to guide the average capitalist.

Most good mechanics, before they were ordered out by the irresponsible element in the unions, were receiving fair wages and were, with their families, independent and happy. Are they in that condition

trol it after death.

and happy. Are they in that condition

believe that more real happiness exlets in the homes of good mechanic does in the homes of millionaires. does in the homes of millionaires.

Did any strike improve the condition of the mechanic? In fact, his condition has deteriorated, independent of the great loss of wages during any strike, causing his family much suffering. Before the days of unions the mechanic had something to look forward to by being skillful and industrious; but now all ambition is buried and his infustry and skill do

FINE OFFICE ඉතතතතතතතතතතතතතතතතතතතතතතත Forced Extension Big Removal Sale

GREAT BARGAIN L

Prices that should enthuse every cautious, careful housewife into buying NOW Grand clearance sale of short lots and discontinued lines of boys' and youths' clothing. All the newest and best Spring goods at REMOVAL SALE PRICES.

DRESS GOODS

38-INCH SCOTCH CHEVIOTS, all-wool, large assortment of colorings, nobby, serv- 45c iceable goods, sale price...... 42-INCH IMPORTED ETAMINE in colors black and bright navy blue, worth \$1 77C

yd., sale price..... 44-INCH ALL-WOOL FRENCH BEIGE, assorted shades of gray, good values for 68c \$1 yard, sale price

SILKS

21-INCH BLACK PEAU DE SOIE SILK, fine firm quality-our regular \$1.25 quality, 980 sale price..... GUARANTEED TAFFETA, black and colors, 21 inches wide, extra bright finish, cheap 68c at 85c yd., sale price

WAISTS

WHITE LAWN SHIRTWAISTS, trimmed with six rows of embroidery insertion, \$1.13 WHITE OXFORD SHIRTWAISTS, full mercerized finish, large pearl buttons, worth \$1.25

TAFFETA SILK WAISTS, made with fine tucks, all sizes, colors blue, pink, navy, red \$2.98 and black, worth \$4.50, sale price. BLACK MERCERIZED SATEEN WAISTS, fine quality, made with small tucks front and back, good values for \$1.50, sale price.

PERCALE WAISTS, dark and light colors, made in latest styles, all desirable patterns, 59c worth 75c, sale price...................

DOMESTICS

ы	DOMESTICS
k	Cream Shaker Flannel, sale price 40
6	10c Percales, 31 inches wide, sale price 71/c
ŀ	25c all-wool Baby Flannel, sale price 19c
1	60c full size Bed Sheets, sale price 45c
٤	\$1.25 Summer Comforters, sale price 98c
,	121/2 Fast Black Sateen, sale price81/2
2	8c Cretonnes, dark styles, sale price 61/c
ĭ	15c Percales, all new styles, sale price121/c

DRESS SKIRTS

BLACK CHEVIOT SKIRTS, all wool, lined with percaline, velvet facing, flared effect, \$3.38 regular \$4.50 kind for..... BLACK CHEVIOT SKIRTS, trimmed with straps of taffeta silk, nicely bound \$4.25 and lined, worth \$5.50, sale price... WALKING SKIRTS, made of medium weight Melton cloth in Oxford and blue-\$2.75 gray, worth \$3.50, sale price..... WALKING SKIRTS, made of all-wool cloth, medi-

um weight, dark, medium and light \$4.50 gray colors, worth \$5.75, sale price. LINENS

60-inch Bleached Table Damask, all linen, 540 65c quality for..... 58-inch extra heavy quality German Linen, 39C 50c quality for..... 68-inch Bleached Damask, fine grade, 680 worth \$1.00 a yard for 60-inch Table Linen, serviceable quality, 22C sale price..... 72-inch extra fine grade Bleached Damask, 90c sale price..... 56-inch Turkey Red Damask, fast color, 18C 25c value for 60-inch Oil Red Damask, satin finish, sale 45C price

TOWELS

Bleached Barber Towels, 50c dozen, or, 5c each..... Bleached Crash Towels, size 18x36 inches, 9c 95c dozen, or, each Huck Towels, part linen, size 17x31 inches, 9C

\$1 dozen, or, each Huck Towels, mostly linen, size 18x34 11C inches, \$1.25 dozen, or, each..... Huck Towels, mostly linen, size 21x39 14C inches, \$1.50 dozen, or, each..... Damask Towels, all-linen, large size, knot- 22C

ted fringe, each.....

Ladies' fine Silk Lisle Vests, in \$2.50 Radcliffe Oxfords \$1.98 white and all the best colors. silk lace trimmed, slight imperfection in the weave; well worth 50c in the regular 19c

Ladies' Silk Lisle Vests

35c Infants' Rubens 25c

"The Rubens" is the best vest made for infants, no buttons, no trouble; regular 35c values; in all sizes. Sale 25c price Sale 25c

50c Ladies' Lace Hose 25c

Ladies' fine lace lisle Hose, in black, tan and brown colors close, sale price......25c

20c Ladies' Hose 15c Ladies' black cotton Hose, seamless, full finished, with white

Fifth and

Yamhill

Streets

SHOE DEPT.

Women's patent leather and XX vici kid "\$2.50 Radcliffe Oxford Ties," English welt soles, medium weight, kid and patent tips. Special for Monday and Tuesday's Research CAC.

Medalion and scroll effects, all that is newest and best. Sale prices, 12 1-2c, 15c, 20c, 25c, 35c, 50c yard.

All-over Lace, 18 inches wide, to match in cream and white. Tuesday's Removal \$1.98

\$2.00 Girls' Shoes \$1.60 Girls' heavy, school, kid lace Liberty Satin Taffeta, four inches wide, in all the wanted shades, soles, broad coin toes, patent tips; regular prices \$2.00; sizes 11 1-2 to 2. Removal price \$1.60

Girls', of same quality, sizes 8½ to 11...\$1.50 \$2.00 Boys' Shoes \$1.60 leather soles, made for school wear, sizes 3 to 5½; regular \$2 values. Removal \$1.60 | Sale price | Hat DRAPES_U½ yards long, neat striped and figured designs. Sale price | New Turn-over collars, with embroidery edges, the lates. Boys' box-calf, lace Shoe, solid

PORTLAND'S FASTEST-GROWING STORE

Laces

New Applique Lace, in wave, medallion and scroll effects, all

Sale prices, \$1.00, \$1.35 and \$1.50 yard.

Ribbon wide, in all the wanted shades, white, cream, piak, light blue, tan and cardinal; regular 25c and 30c value. Sale 16c with scalloped and lace edges; regular 35c and 40c kind.

NEW STORE Third and Morrison Streets WHEN READY

<u>ඁ</u>෨෨෨෨෨෨෨෨෨෨෨෨෨෨෨෨෨෧෧ඁ

lemporary Dry Goods, Gents' Furnishings and Shoes

dramas, which MacDowell and Miss Flor- originally numbered 30, were seriously injured and the remainder, when they pro-tested, were seized, their hands tied with cords, and they were forced to work un-der an armed guard.

The arrest was made because the plain! tiff declared the defendants were to leave the city to avoid the suit. Hurtig and Seamon, owners of the Empire Th thers do. Why not you? 'ry Opia, the best 5c Havana-filled cigar. ater, and Miss Stone are made party de-

not count, as carcless, and shiftless, not count, as carciess, and shirtless, incompetent workmen get as much for labor as he can, and few people have enough moral courage to do more than absolutely necessary. And the only ones that can be benefited, by most strikes, are the incompetent and title workmen, and most of the benefits received by them simply increase the earnings of some saloon to the deriverent of their familiar. loon, to the detriment of their families, if they have any. There is nothing of a fraternal nature in union organizations; if there was, they should exist for that purpose alone and not for the purpose of inflicting punishment on their members and families and ruining business enter-prises that have been able to be created

prises that have been able to be created by the most prosperous times that have existed for years.

During our late business depression we had no strikes, and the mechanic was obliged to work for any wages he could obtain, and often could obtain no work at any price. If this strike continues long, the same depressed condition will return and starvation rates will again be paid.
A great many mechanics are forced to belong to a Union, or cannot get work.
During the tie-up last Summer many first-class mechanics left Portland in or-

der to obtain work and rid themselves of the burdens of the unions, whose objects seem to be to pull down instead of ele-vate, i. e., pull down the skilled mechanic to the level of an ordinary one and not to endeavor to elevate the latter class to the grade of the former class. Such a the grade of the former class. Such a condition cannot live long, as skill, industry and ambition must be recognized, but it may be after a struggle that will hemean all classes of labor and cripple beyond resumption all industrial enterand cause all interested to gravitate independence to dependence and from napplness to unhapplness. MODERATION.

Planter Murdered by Negroes.

VICKSBURG, Miss, May 2-Willis Vicksburg, hiss, hay 2-william Long, a prominent planter living at Adams Landing, on the Mississippi River, attracted to a burning house on his plantation last night, was set upon by negroes and killed. Posses are scouring the country for three negroes suspected of the murder. A wholesale lynching is probable if they are caught.

Actor MacDowell Was in Jail.

ence Stone have been playing with the Empire Theater Stock Company here. Howard Refused New Trial.

FRANKFORT, Ky., May 2.-The attor-

neys for James Howard filed today three sensational affidavits in support of their motion, giving their reasons for asking for a fourth trial. The affidavits are made by W. L. Gradly, A. J. Wofford and H. F. Johnson and charge that, prior to the trial, they heard both Jurors Renshaw and Neal say that they were convinced Howard was gullty and that if summoned and accepted as jurors they would vote to hang him. The jurors in question, when examined for qualification as jurors, both stated that they had neither formed nor expressed an opinion. The pr will later make answer to the mo The motion for a new trial was over-ruled.

Italian Laborers Enslaved WASHINGTON, May 2-Nine Italian laborers who have been working in the vicinity of Beckley, W. Va., have complained at the Italian Embassy here of cruelty and hardships which they claim to have endured in West Virginia. They assert that on their arrival in New York they entered into negotiations to work for C. P. Harmon, contracting agent for the Chesapeake & Ohio Railway in West Virginia, but on arriving at their destination they were compelled to engage in dangerous and hazardous labor. Four of their party, which they say

Derma Roxale Insures Pure, Soft, White Skin and a Beautiful Complexion, curse Ecasema and Totter. Ab-golutely and Permanently removes Blackhoads, Frec-ties, Pimples, Escheese, Sun-spots and Tau. Used with Derms.-Royale Scap a Fan-fect skin is insured.

Sold by Druggists, or may be ordered direct.

Wenkness.

Affections of men, commonly described as "Weakness," according to our observations, are not such, but depend upon reflex disturbances, and are almost invariably induced or maintained by appreciable damage to the Prostate Gland. As this may not be provided by the patient it is very freperceived by the patient, it is very fre quently overlooked by the physician.

We Also Cure Varicocele, Hydro cele, Stricture, Piles, Etc. cele, Stricture, Piles, Etc.

DISUNDERS, No contracted disorder
is so trivial as to warrant uncertain
methods of treatment, and we respecttuily solicit those cases that other doctors have been unable to cure.

If you cannot call, write for our calored chart of the male anatomy, details of our successful Home System,
etc.

DR. TALCOTT & CO. 250% ALDER STREET. San Francisco Office

1140 MARKET STREET.

There are many organic and inorganic substances in which sharp changes of temperature produce changes of structure, or, as scientists put it, which assume new "phases" under such changed conditions. This alteration of form or structure can be produced suddenly if the temperature-point necessary for alteration is very de-cidedly overstepped. But if the tempera-

such as an animal or a plant.

But scientists did not dare to commit

themselves so far. They asked themselves the question in private at first. To ask it

that even ordinary scientific men could not follow the intricate processes intelli-gently, and only specialists could perceive the real meaning that lay hidden in the

results. At last, however, the demonstra-

tions had multiplied so much and were so striking in their significance that hesita-

tion gave way to assurance and the the ory of disease of metals has been so far

To Inoculate Metal.

Now another of the specialists in the

new research, the famous Dr. Bechhold,

of Germany, has gone still further-not

conclusion reached as the end of a series of careful, logical steps fortified by ex-

"Who knows," he asks in summing up

his studies, "if metallurgy will not soon create a new and vastly important branch

for itself—the branch of producing inoc-ulating material for metals which shall change their timber and form swrifty, in-stead of waiting for the slow processes

of forging and tempering that obtain to-

He explains this conclusion as follows:

ture does not go far above or below the alteration point, it is necessary generally to introduce an artificial impulse to con-summate the change. It is possible, for instance, under certain circumstances to cool water to a tempera-ture well below freezing point, and still it will not solidify into ice until a crystal of

ice is introduced. Then it begins to form ice crystals at once, and soon is solid. Pure glycerine cannot be frozen with ordinary means, even if they produce tem-peratures as low as 30 degrees below zero, until a bit of giverine that has already been frozen is introduced. But as soon as disease, it follows that they can be ince this crystal of frozen glycerine is in, the lated as organic substances can be.

UEER experiments that have been | reet of the glycerine, which has been so made recently in Europe with met-als have opened a new world for the begins to freeze beautifully.

and even scientists accepted this as an is only a series of processes of crystalliexplanation; yet now that the recent untion Now recently a strange thing in met-allurgy happened. A ship was loaded with studies and experiments have begun to solve the puzzle, it is evident to everybody

allurgy happened. A ship was loaded with man metallurgists have come to speak Banca tin in the straits and sailed for a morthern port in Europe. When it armived the rest of the work of the work of the rest of t that "flaw" really explained nothing. To northern port in Europe. When it arrived there and the work of unloading the valuable cargo began, the merchants to call the defect a flaw was only to give a name, that meant very little, to an entirewhom it was consigned were amazed and dismayed to discover that the entire ship-ment had actually crumbled into dust. Here was a mystery. For a long time no one could solve it. Years ago it would Before the new experiments had gone far, it was discovered that metals can be oned-poisoned just as readily and with as fatal effect as any organic body, have been dismissed finally with the state-ment that there must have been a "flaw" or a "fault" in the tin. But the flaw Of course, with this development, the question arose at once, Is a metal an or-ganic body after all?

theory had become unsatisfactory. Then Professor Bredig came out with photographs that he had made in a church in Silesia. The pictures showed the remnants of organ pipes, most of them full of queer, crumbling holes. Whole pipes in public was almost to ask the world to of queer, crumbling holes. Whole piper change one of its fundamental scientific had vanished absolutely.

There was no rust, and all investigation

which is organic and the other inorganic.

More experiments followed, some of them so elaborate that a single one required many months before it reached a result; most of them were so ingenious that even ordinary acientific men could not follow the intriests wentle. ries of the diseases of metals, found a "wound," a genuine, open wound, in a pipe; and his careful, accurate and rigid experiments furnished the convincing proof that this wound had infected the en-tire series of pipes with a creeping dis-

Scarcely had he finished his investiga-

Scarcely had he finished his investigations in the Bilesian Church before a
strange coincidence enabled him to extend his experiments, and at the same
time obtain additional proof of the correctness of his previous findings.

He was asked to inspect the great tin
roof of the Rathaus or Council House of
Rothenburg. Arrived there, he was informed that several years ago the roof,
although it had been attended to carefully,
painted regularly, and kept perfectly free
from rust, had begun to crumble away. accepted by the practical men of metal-lurgy that the Imperial Navy-yard in Wilhelmshaften. Germany, sends metals regularly to the "autopsy-room" and "dis-secting tables" of Professor Heyn, one of the leaders in the new investigation. from rust, had begun to crumble away. No one could imagine what caused it. Professor Bredig soon discovered a cen-ter of infection. And he was able not in a mere conjectural theory, but with a only to trace the gradual progress of the infection over the Council House roof, but to show where the disease had actually spread to a tin roof near by.

The Wonderful Tin-Pest.

The phenomenon has been named "tinpest," and the explanation has been advanced that tin retains its distinctive and most valuable attributes only in temperatures above 20 degrees. In cold greater than this structural modification occurs quickly, and if the cold is pushed to an intensity great enough to disintegrate the tin, it often crumbles away in a grayish

In temperatures that do not often fall far below 20 degrees, the changes are ex-tremely slow, unless the tin becomes in-fected with the "gray modification." If some of the gray powder of tin that has happened to disintegrate should attach itself to the sound tin, then the disease cates itself rapidly to all parts of

In the cases of tin plates such as are used for roofs, the tin is not a chemical individuality of the own, but is a mixture of iron and tin, both of which have ai-ready passed through several modifications during the processes of convention into plates. Therefore, the process of infec-tion becomes complicated, and a thir root offers a less resisting field than pure tin. Now, if metals can be thus infected with can be inocu-

as science has gradually built a bridge-between animal life and plant life, so it appears possible now to find a bridge be-tween the lower phases of plant life and the so-called inorganic or dead world.

has to undergo all the changes that the animal body undergoes in the course of growth. It is a combination of iron and carbon, and carbon is organic. The Ger-

temperatures that are applied to it in working it. During the course of its changes, it During the course of its changes, it often develops qualities that make it useless for industrial purposes while they last. Thus at one step it becomes brittle—a temporary diseased condition that yields to what might almost be called the

medical treatment of heat properly gradunted. Polson this steel with hydrogen or hydrogenous matter and you sicken it so decidedly that it gets into a condition

where it is as brittle as if it had been ruined in tempering. Professor Heyn has been studying the changes in fron under all grades of tem-perature, and he holds that the metal passes through various stages of disease that produce structural changes just as cells change in form, size and position in the forms commonly called "organic."

He heated copper in order to find why that metal suffers from overheating, and his conclusion is that it becomes poisoned with copper protoxide, which so sickens it structure changes and partially

FOR THE 1905 FAIR.

Proposal to Get Loan of Queen Vic. toria's Jubilee Presents.

PORTLAND, May 1.—(To the Editor.)— As a British-born subject, 15 years resident in the West, I should like to suggest to those living in Oregon who were born in the realms of the late Queen that we might unite in a petition to his present Majesty (whose regard for the United States is well known) to permit his late mother's jubilee presents to be leaned from St. Louis to our Exposition

I am aware of the difficulties in the way, such as insuring their safety in the interval, etc., but if arranged, what a help it would be to an enterprise so dear to our adopted state, and we could only get a courteous refusal at the most. It seems to me this would be the best way to strengthen any application for such exhibit, which, if obtained, would be of immense interest to thousands of those born "across the pond" and visi-tors generally. Anyhow, I throw out the idea for the consideration of the British organizations and the directors of the Lewis and Clark Fair.

JAMES HEATLEY.

American Capital for London Tubes.

NEW YORK, May 2.—Several of the most important banks and trust companies in the United States have joined a syndicate to underwrite an issue of \$15,000,000 5 per cent ten-year notes of the Underground Electric Railway Company, of London, England, the company controlled by the Yerkes-Speyer syndicate. The syndicate has been organized by Speyer & Co., of this city, and the old Trust Company, of Roston. The entire loan will be \$13,000,000, the other \$15,000,000 being placed in London. The payments will be distributed over a period of 12 months, so arranged as not to disturb the money market in any way. American Capital for London Tubes,