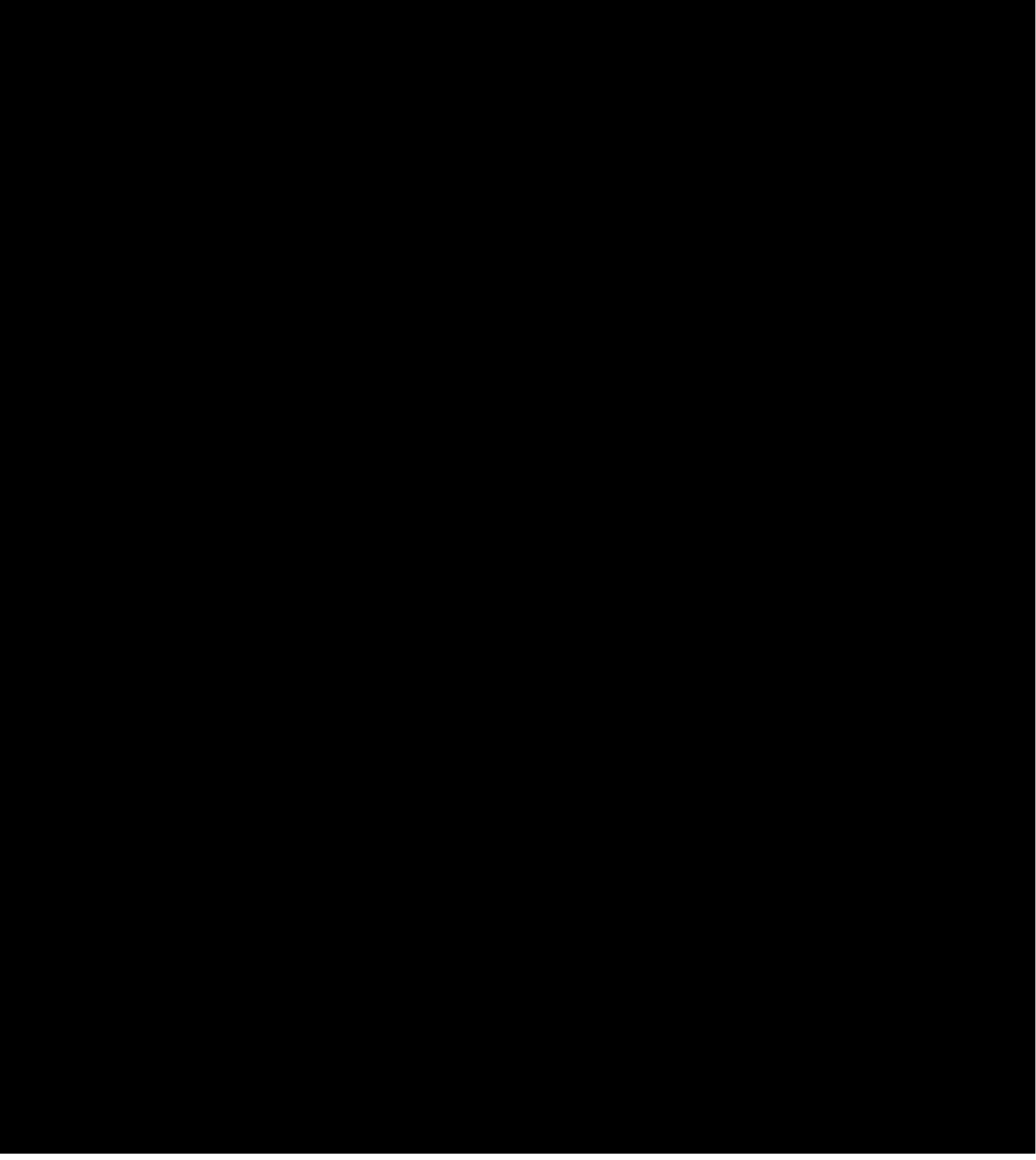




Mudlavia News

MUDLAVIA, INDIANA, MAY, 1908.

Price Five Cents.

THE WORLD'S PAINT PAIR

America so characterized by the
Kirk White, Vice-President of the
White Lead and Color Works—superiority of our products—has
been by the Old World.

"Some day," said Mr. H. Kirk White, vice-president of the Acme White Lead & Color Works, Detroit, Mich., "the paint manufacturers of the United States will rank with the steel industry. Already America is the

many other things from billboard to hundreds of thousands of freight cars. The Acme company is the apple of Mr. White's eye and he has watched it grow, year by year. From a little dingy room out on Grand River Ave., Detroit, where it was started twenty-four years ago, into one of the foremost concerns of its kind in the world. Although Mr. White is advanced in years and is interested in many different lines, the paint plant is still his favorite. Starting on a \$10,000 capital, the company is now capitalized at \$2,000,000 and covers with its immense buildings, fourteen acres of ground. The Acme company was originally started by William L.

BABY LIKES MUD BATH

Master John Lowrie Montgomery at Two Years and a Half Takes to Moor-Mud Like Veteran—He Didn't Feel One Bit Afraid.

Master John Lowrie Montgomery, two and one-half years old, son of Dr. and Mrs. W. J. Montgomery, 191 Fifty-fifth St., Chicago, stepped from the Moor-Mud bath at Mudlavia one

his out—a 250 pounder. The contrast between the two, both as black as the ace of spades, made the bathers roar with laughter, but that passed right over John Lowrie. The diminutive chap bravely asserted to everybody that he wasn't scared, but a bit afraid. "Now, I wasn't scared," he said, "it's fine. When I grow up, my papa says for me to take mud baths if I get sick."

Dr. and Mrs. Montgomery spent a very pleasant rest period at Mudlavia, leaving much pleased with the bath and Little Western. "I shall be more than glad to say a good word for Mud-



ALCOVE OF NEW DINING ROOM AT MUDLAVIA.

paint pair of the world. The countries of Europe have recognized the superiority of the paint and relative products made in this country. The business has been reduced to a science. Mr. White was a recent guest at Mudlavia, where he has been several times, coming each year to spend a rest period and recuperate from the arduous duties imposed upon him by his many enterprises.

Mr. White declares that the home factories will be busy for years to come supplying this country with paint and varnish enough to cover its 20,000,000 structures of wood and brick.

Davies, now president, and Thomas Neal, the present secretary and general manager, and had a capacity of one barrel of paint a day when Mr. White and his brother advanced capital and came into the firm. His brother, Albert E. White, is treasurer of the company.

By the death of Mr. D. M. Perry, Mr. H. K. White becomes president of the D. M. Perry Seed Co., of Detroit, the greatest seed house in the country. He is also president of the Gale Mfg. Co., of Albion, Mich., besides being prominently connected with a score of other enterprises.

morning recently, as proud a little specimen of budding manhood as ever walked. The youngster doffed his clothes and entered the bath under the guidance of an attendant with as much assurance as any seasoned "mudite." John Lowrie stayed in the mud nearly ten minutes and he let every one in the hotel know that he had taken a mud bath with his "daddy" and how fine it was. When he walked to the shower one of the grown-up bathers was just leaving

lavia to my friends," said the doctor. "I have been to a great many resorts, but have never been treated with more courtesy and consideration than at your place. Your medical staff is far above the average. I am sure Mrs. Montgomery feels as I do about our visit and Lowrie has had the time of his life. We shall certainly come again." Dr. Montgomery is one of the leading dentists of the South Side, where he and his wife have many friends. The doctor is Past Supreme President and Deputy Supreme Lecturer of the Xi-Psi-Psi.

0007-SWP-042843

STRAPHANGER FINED

London Magistrate Establishes Precedent That Would Fill the Depleted Coffers of Our Cities if Tried Here—Britisher Comes Under Ban of Law for Standing in Crowded Tram.

Just think of a man in this enlightened day of the straphanger on the crowded subway, elevated and surface cars in our great American cities, being fined for standing up because he could not find a seat! It would be somewhat of a stretch for the imagination, wouldn't it? However, the English authorities look at the matter in a different light, according to Mr. Fred Buck, vice-president and general manager of the Lufkin Rule Co., of Saginaw, Mich., who was an April visitor to Mudlavia.

"In London," said Mr. Buck, "the laws governing the street railways, or tramways, as they are called in the British capital, are very rigid. Just the opposite of New York, Chicago and other big American cities. Any person standing in a tram or subway when all seats are taken, is violating the municipal laws of London. The corporation operating the cars is also liable. Recently I saw a man heavily fined for the offense in a London court. If every American was fined for hanging on a strap in a street car, the revenues of a great many of our cities would be materially increased. The transportation question, however, is an entirely different proposition here from what it is in other countries. The subways of New York, for instance, carry more passengers in a minute than those of London in a day."

The subway idea has advanced more in this country in a comparatively few years than it has in London in the fifty years that they have been in operation in that city. There are now seven underground railways in the English city, all electrified, but none of them approach those of New York as a transportation medium. Mr. Buck says that it would be impossible to use the methods in vogue in foreign cities as to street railway regulation in this country, conditions being so different.

Mr. Buck has traveled the world over and is a close student of affairs in this country and abroad. His company is the largest of its kind in the world, having branches in New York, Windsor, Canada, and London, England. During the latter part of Mr. Buck's stay at the Springs, Mrs. Buck was with him. Although they have been to many resorts, they had never been to Mudlavia before and were charmed with the novelty of the mud bath. Both of them expressed a desire to make a return trip as soon as possible.

Thousands have been cured at Mudlavia by the Moor-Mud treatment, of rheumatism and allied diseases, many of them learning the road to health through the columns of the MUDLAVIA NEWS. If you know of a friend who is afflicted, send in his name and we will mail him a copy of the paper.

DULUTH EDITOR BOOMS MUDLAVIA

Mr. A. C. Weiss, Man Who Started Gov. Johnson on Road to Presidency Through Columns of Duluth Evening Herald, Writes His Opinion of Mudlavia—Charmed With Resort.

Should Governor John A. Johnson, of Minnesota, be so fortunate as to capture the nomination for the presidency at the national democratic convention to be held in Denver this summer, he can, in a measure, thank Mr. A. C. Weiss, president and general manager of the Duluth Evening Herald for the honor. It was Mr. Weiss who first realized the great executive worth of Mr. Johnson and through the columns of his paper fostered the present governor's candidacy for chief magistrate of the state.

Mr. Weiss, who came to Mudlavia in the early spring to regain his health after several weeks' illness in the hospital following a serious operation, was high in his praise of the Moor-Mud place as a health resort. What he thinks of Mudlavia is told in a communication he wrote to the Indiana Springs Co., appearing below in this article. The Duluth editor is a man of engaging personality and is proud of his paper and the city it represents. The Herald has been controlled by Mr. Weiss for over twenty years; he has seen it grow from a country newspaper into one of the leading dailies of the northwest. Governor Johnson, since his election, has shown his appreciation of Mr. Weiss' efforts in his behalf by conferring with him on many questions of public interest. He has asked the editor to be one of a board of three appointed by the governor to attend a conference called by the president this month to discuss the conservation of the natural resources of the country.

Duluth, now a city of 75,000 population, is rapidly approaching the point when it will be one of the leading industrial centers of the world;



THE "POTS" ON PINE CREEK.

It is destined to be one of the great railroad terminals of the country on account of the immense wealth of its natural resources—copper and iron. Already, the United States Steel Corporation has purchased land in Duluth at a cost of \$200,000 upon which to erect a plant costing from \$15,000,000 to \$25,000,000. Three new railroads are negotiating for entrance into the city. The Wisconsin Central will pay \$4,000,000 for the privilege and will have to tunnel five blocks through solid rock to reach its terminal point. With the exception of Boston, Duluth is the greatest copper market in the world.

BY MR. A. C. WEISS.

"In leaving Mudlavia after a two weeks' sojourn at your pleasant resort, I cannot refrain from expressing my gratitude to you for the benefits to my health that I have received during this stay. I was in a very run-down condition, superceded by a two months' illness, leaving me in a very weak and nervous state. Owing to my weakness I was rather reluctant about taking a series of Moor-Mud baths, but upon the assurance of my physician, I came to Mudlavia and have been greatly benefited and generally built up. The baths, under the direction of your chief medical director, together with the great amount of Lithia Water I drank daily from your Lithia Springs, acted like a tonic on me, with the result that in leaving I consider myself a well man."

"I cannot refrain from speaking of the home-like air of your hotel, the excellent table you set before the guests, the immaculate condition of your bedrooms, bedding, and, in fact, the entire outfit from top to bottom. You will hereafter see me at Mudlavia every year from this time hence for at least two weeks, as I shall deem it an annual duty I owe myself."

"Yours very truly,

"A. C. WEISS."

President and General Manager Duluth Evening Herald
Duluth, Minn.

HAS DOCTORS' SANCTION

Moor-Mud Endorsed by Leading Physicians as Nature's Cure for Rheumatism—Medical Practitioners Send Thousands of Patients to Mudlavia—They Come Themselves, Too.

The fact that over a thousand practicing physicians visit Mudlavia each year is a criterion of what the consensus of opinion is in regard to the efficacy of the Moor-Mud bath and the Lithia Waters. They not only come themselves, but send their patients to the Indiana health resort to reap the benefit of the Moor-Mud method for rheumatism, kidney and stomach troubles and allied diseases. It is logical to believe that if the Moor-Mud bath were not what it is claimed to be physicians would shun Mudlavia instead of giving it their unlimited sanction. The wonderful success of the resort is based upon merit alone. The departing guest is the best testimonial Mudlavia has. If they come once, they come again.

Between fifteen and twenty thousand positive cures have been received by people taking the Moor-Mud and Lithia Water treatment in the two decades Mudlavia has been conducted by Mr. R. L. Kramer. Little did Samuel Story, the old soldier, who was the discoverer of Nature's great panacea for the afflicted, foresee that the big patch of coal-black loam he found on his tiny farm would be the foundation for one of the world's most famous health resorts. Not only from the United States, but from all over the world, patients come to Mudlavia seeking relief. A few years ago it was thought one must travel to the European spas to take mud baths, a journey requiring much time and necessitating the expenditure of more money than the average sufferer can afford. Now conditions are reversed. Not only is Mudlavia easy of access to all points of the country, but the expense of a few weeks' stay at the Moor-Mud resorts is nominal and the benefits far in excess of those to be had at other resorts. There is only one Mudlavia and that is located at Kramer, Ind., five miles from Addison, Ind., from which point the visitor is conveyed to Mudlavia in the big, red automobiles operated by the Indiana Springs Co. For detailed information in regard to rates and reservation of rooms, address Mr. R. L. Kramer, president and general manager of the Indiana Springs Co., Kramer, Ind.

STILL ANOTHER BOOMER.

The following is an extract from a letter written to a friend at Mudlavia by Frank Smith, city clerk of Dana, Ind.:

"I am still enjoying the best of health and have gained fifteen pounds since you saw me last. I have not had a rheumatic pain since last August, so I guess I will have to be a boomer for Mudlavia, for I truly believe that the treatment I received while there cured me of rheumatism. Pretty good testimonial, is it not?"

0007-SWP-042844

NEW PROCESS OF MAKING WHITE LEAD WORKS GREAT CHANGE IN PAINT INDUSTRY



But work in St. Louis was a man named Wilcox H. Rowley, who worked out an improvement, and his experimentation went forward for seven years, until success was earned. The "mild process" is so absurdly simple that one wonders how the world blundered along without it so long. Here it is: The pig lead is hoisted to the third story of the plant and melted in a great cauldron. In this initial carrying to the cauldron is the only need of human labor, until the finished product is poured.

These men are all that are required to operate the big plant with its enormous capacity of 15,000 tons a year. The "mild process" accomplished in 10 days what the old Dutch process required 120 days to accomplish. The possibility of lead poisoning, so ever-present in the old process, is banished. There is no lead, and no lead particles are lost. Instead of losing 5 per cent, as in the old system, the new system makes a chemical gain of 5 per cent, so that for every 100 pounds of lead put in 105 comes out. It is one of the most important developments of the past 50 years, the first of its kind in the world, and places Detroit in the front rank as a plant maker.

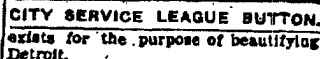
The purchase of a button and the signing of a certificate makes one a member of the city cleanup league, and the money thus taken in was used for league expenses. The buttons are on sale in stores throughout the city, and citizens will be reminded of it by stars and the wind-down signs. When sufficient buttons have been taken in any one neighborhood the league will be organized in that association.

The league was organized in Chicago and the general purpose is the improvement of the city and the warping of the league in every way. As a result of the league, the city is beginning the league in every yard and alley cleaning up day on April 24, and is offering prizes for the most attractive yard presentation.

The league is a movement for public play, and is a

**PURCHASE GIVES MEMBERSHIP
IN ASSOCIATION TO ENCOUR-
AGE HOME BEAUTIFYING.**

Buttons signifying membership have been placed on sale all over the city, and, lest any forget, signs have been placed in windows and on street cars to remind citizens that such a league



By buying a button you become a member. The membership will be divided into district associations, each of which will encourage home beautifying and artistic gardening in its section of the city.

Cups and prizes are offered for the greatest improvement in conditions. All the district associations are to be represented in a city gathering.

PAINT MAKING IS REVOLUTIONIZED BY NEW PROCESS

"MILD PROCESS" FOR MANUFACTURE OF WHITE LEAD IS INSTITUTED BY ACME COMPANY—PLANT COSTS \$250,000.

A new industry that bids fair to make Detroit the most important paint center in the United States is the "Mild Process" for the manufacture of white lead, which has just begun operations at the Acme White Lead and Color works at St. Aubin-ave. and the Michigan Central railway tracks. The fine new four-story building, of brick, steel and concrete has been completed and the machinery set in motion which will completely revolutionize the manufacture of white lead.

The building alone cost some \$100,000 and when the plant is fully equipped it will be an investment of a quarter of a million of dollars. The capacity of the plant is 10,000 tons per annum and the money value of that would represent in the neighborhood of a million and half dollars, so it will be seen that this industry is one of the most important acquisitions that Detroit has had for some time. While there is an immense amount of money involved, the machinery is simple. The plant is automatic and the process is continuous, the machinery to be operated 365 days in the year, day and night.

The state of perfection to which this has been reduced will be noted when it is seen that only 12 men are employed in operating the machinery, two shifts, six men nights and an equal number during the day. All of these men are practically inspectors, the only labor being performed when the pig lead is put into the kettle at the beginning of the process.

Invention of Wilson H. Rowley.

The "Mild Process" as it is known, was invented by Wilson H. Rowley, formerly of St. Louis, but now of Detroit, but the idea was taken up by the Acme White lead people and they put behind it the mechanical engineering and chemical skill that a corporation of such impensity could command and assisted Mr. Rowley to develop it.

White lead is the most important of all the paint pigments and the industry has always been considered as among the most important in the country, but heretofore the Acme company has been obliged to import what is used from St. Louis concerns. It is said, however, that until the last few years progress and improvement in the methods of manufacture of white lead have not kept pace with

the "Mild Process" formerly used, and the "Mild Process" it has been scientifically demonstrated that the product of the latter is superior in quality, less expensive, more sanitary, uniform without impurities of any kind, requiring only five days to produce, while the Dutch process takes four months, and the full chemical increase, which is about 35 per cent, is obtained as every particle of metallic lead is converted and none lost. It appears strange to the average person, but has been demonstrated, that when 100 pounds of pig lead has been put into the process, 128 pounds of carbonate of lead is taken out. This is explained by the chemical operation of taking up the air, water and carbonic acid gas.

Product is Superior.
By comparison of the "Old Dutch process," formerly used, and the "Mild Process," it has been scientifically demonstrated that the product of the latter is superior in quality, less expensive, more sanitary, uniform without impurities of any kind, requiring only five days to produce, while the Dutch process takes four months, and the full chemical increase, which is about 35 per cent, is obtained as every particle of metallic lead is converted and none lost. It appears strange to the average person, but has been demonstrated, that when 100 pounds of pig lead has been put into the process, 128 pounds of carbonate of lead is taken out. This is explained by the chemical operation of taking up the air, water and carbonic acid gas.

It is said that under the "Dutch process," it would take a plant covering 10 acres of ground to be as efficient as the one just completed by the Acme company for the "Mild process."

Wear Her Button on Your Coat

Are you proud of dear Detroit?
Are you glad you're living here?
Does your heart beat for our city?
Do you hold her beauties dear?
Do you count home and love it?
Every inch of it? Then note:
Show your love to every stranger,
Wear her button on your coat.
If the city you were born in
Has a place within your heart,
Or the city you've adopted
In your life now plays a part;
If away from her, my brother,
Comes a lump into your throat,
And you long to see her temples,
Wear her button on your coat.

Do you travel over waters
Do you travel over land?
Are you oft alone with strangers
On a distant foreign strand?
Would you like a tie to bind you
To your home when so remote,
Just a link 'twixt home and home-
less,
Wear her button on your coat.

Yea, we have the fairest city
In this land of freedom bright;
And we have the fairest women.
We have men of truth and might.
And we have the finest river,
On which graceful vessels float.
Are you proud of her? Then, brother,
Wear her button on your coat.

New Slogan About "Life," etc. to Adorn Building in Electric Lights.

Ald. Bress's committee of the common council, on public buildings, now has a job in municipal aesthetics cut out for it. Ald. Renaud's resolution adopted by the council last night directs the committee to give attention to the following:

"Disapidated condition of the sidewalks around the city hall; the yellow and fragmentary appearance of the public advertisements posted on the bulletin boards at both sides of the western entrance to the city hall; the leveling of the elevated flower beds in the front yard of the stone building; and the erection of this electrical slogan on the east side of the city hall:

"In Detroit—Life is worth Living."
This resolution was inspired through a petition which has been given widespread publicity by the Acme White Lead & Color Works of Detroit.

Park Commissioner Breitmeyer was authorized to borrow \$15,000 on the appropriation for the ensuing fiscal year, to enable him to proceed with the resurfacing of the boulevard system on which a total of \$36,000 is to be expended.

The petition from the Detroit Federation of Labor in behalf of the journeymen barbers, requesting that action be taken to compel the observance of the Sunday barber shop closing law, was referred to the ordinance committee.

ELECTRIC MOTTO "ABSURD"

Would Soon Make Life Cease to Be "Worth Living."

To the Editor: Permit me to enter my protest against the proposal of the Acme White Lead & Color Works, made in your Sunday edition and also by circular letter, to the effect that an electric sign bearing the inscription: "In Detroit—Life is worth living," be displayed upon the city hall each evening.

For several years the city hall bore the word "Welcome" without any appreciable effect upon the growth of the city or the happiness of its inhabitants. Finally, persistent opposition succeeded in having it discontinued.

The aim of those who are operating under the slogan "In Detroit—Life is worth living" is to aid in the growth and development of Detroit. If this motto is forced upon Detroit citizens at every turn of the road, life will soon cease to be worth living, and nothing will stigmatize Detroit more successfully as a small town than to plaster the city hall with this boastful and absurd motto.

CITIZEN.

0007-SWP-042846

SATURDAY, MAY 2, 1908.

Enterprising Citizenship.

An instance of public spiritedness and good citizenship is shown by one of Detroit's leading manufacturing concerns which might be well commended to some of the local institutions of this city, in connection with the efforts to boost St. Joseph.

The instance referred to is that of Acme White Lead and Color Works Detroit, who last year spent \$1,000 for advertising and expect to approximate the same amount this year.

In every piece of advertising that they carried in magazines or mail circulars is contained the Slogan "In Detroit—Life is Worth Living." The originators of this idea of extending the name of their city have encouraged others to adopt the same phrase, with the result that Detroit in this way is being advertised all round the world.

This is an interesting evidence of real public spiritedness on the part of a large manufacturing concern and why can't we start something of the same kind at home?

THIS BEATS THE DUTCH

Old Method of White Lead Making Revolutionized by Detroit Concern.

So old that it is moss grown, is the saying. "It beats the Dutch," and yet the Acme White Lead & Color works has actually done this by the perfection of a process invented by W. H. Rowley by which white lead is made a finished product in from seven to eight days including the drying as against 120 to 135 days by the old Dutch process in vogue for hundreds of years.

This meant the erection of a \$100,000 reinforced concrete building as an addition to the plant of the Acme, a separate establishment devoted entirely to this new industry with especially designed machinery and apparatus. The plant is finished and so is the experiment. At the rate of 10,000 tons of the pure white lead a year is now being turned out, and it is not touched by a human hand from the time the pig of lead is dropped into the furnace on the top floor until the product has, in its various stages of development, dropped to the basement and been pumped again to the second floor, finished.

The Old Way.

In the old process in vogue until this was completed, the metallic lead was cast into perforated discs. These discs were packed into earthen pots or retorts, flooded with acetic acid. About 15 pounds of lead was put into each pot. These pots were arranged in layers piled one upon the other with boards between each layer, and each layer resting on several inches of ground tan bark, which was also placed around the edges of the pots, which were allowed to remain buried in tan bark for from 90 to 120 days while chemical action caused by the heat of the fermenting tan bark and the acid slowly converted the metallic lead into the white lead used for paint. The corrosion was never complete and anywhere from 55 to 85 per cent of the metallic lead only was converted into the finished product. Being hard and brittle it was ground and then floated and pumped to the drying pans of copper. It necessitated the employment of 40 men for every stack of pots.

It is by force of contrast the full significance of the new or "mild process" is brought home, and it is then realized that the Detroit plant will revolutionize the manufacture of white lead the world over. To Detroit, and to the Acme interests is due the credit of making one of the greatest scientific discoveries of the age practicable.

Steam, Water and Gas.

In the new process as operated at the new Acme plant nothing but steam, water and carbon dioxide gas are used, resulting in bringing to the drying pans, a finished product. 135 pounds of white lead for every 100 pounds of metallic lead placed in the starting furnace. During every ten hours the plant is in operation 100,000 pounds of metallic lead is melted, passing from the bottom of the furnace into a very hot, steam filled tank, where it becomes a soft blue substance, as thin as thin mud, and in this state very susceptible to chemical change. From there it goes to large, metallic duplex cylinders where it is kept continuously agitated with water in

Made into White Lead.

In the last cylinders the metallic hydroxides of lead, as they are called, in the presence of a considerable amount of water are subjected to a current of carbon dioxide gas, which in less than two hours, converts the hydroxides into white lead, which, containing no impurities, is ready to pump into the drying pans without any washing or separating whatever. The finished product of purest white lead was seen lying in the drying beds of canvas stretched upon coats of wires with shallow pans beneath to catch the moisture that filters through. The fact of the lead being free from impurities renders the expensive copper drying pans unnecessary. The finished product never grows hard and that part destined for commercial use is passed on to the grinding mill where it is mixed with oil into the paste form seen in the cans when bought from the hardware stores.

No Alkalies Nor Tan Bark.

In the new process no alkalies nor tan bark are required. Twelve men tend the entire plant for 24 hours, and everything is done by gravity and machinery. In its soft condition the product is pumped everywhere, and thus a minimum amount of labor is required. Mr. Rowley not only invented the process, which is covered by broad patents, but also the machinery by which the white lead is made. No pots are required, no lumber is necessary.

There is not a particle of the lead lost. Everything drains into cisterns in the basement and as the same water is used over and over again, the slight metallic residue that may go to the bottom is run through the process again and fully utilized.

"All of this being under water," said Dr. C. D. Folley, the chemist of the establishment during a trip through the plant yesterday, "there is absolutely no danger of lead poisoning. Each stage of the process is under full control, the full chemical increase is obtained and the process produces a uniform article without impurities of any kind. This process requires no acids, tan bark, or parts and takes but two or three days before it goes to the driers where it remains five days, as against from 90 to 120 days by the old Dutch process, exclusive of the drying which of course is five days. In the Dutch process only double refined lead can be used. In this process any good grade of lead is used. After melting the lead is atomized into an impalpable powder, and this atomized lead, as you see, distributed by pumps and gravity."

A Fireproof Building.

The building is of reinforced concrete and steel, three stories in height, light, airy and sanitary, and no man engaged in the manufacture has any hard labor or heavy lifting. Thus the Acme saves immense sums in equipment, in maintenance, and in labor and gets 125 pounds of white lead for every 100 pounds of metallic lead put in the furnace. The carbon dioxide gas is made from coke. The heat furnishes the steam for the atomizing and for the running of the engine. The gas passes through a tower of coke saturated with chemical preparations so that all sulphur and impurities are removed and the gas passed to the carbonating cylinders absolutely pure.

In all its appointments the plant is modern and yet simple and easily managed. Mr. Rowley, the inventor, Dr. Folley, the chemist, and the Acme officials are naturally proud of the achievement and feel that in addition to opening an unlimited field of enterprise, they have also given Detroit something worth having.

0007-SWP-042847

THIS BEATS THE DUTCH

Old Method of White Lead Making
Revolutionized by Detroit
Concern.

Detroit Free Press, May 16, 1908.

So old that it is moss grown, is the saying. "It beats the Dutch," and yet the Acme White Lead & Color Works has actually done this by the perfection of a process invented by W. H. Rowley by which white lead is made a finished product in from seven to eight days including the drying as against 120 to 125 days by the old Dutch process in vogue for hundreds of years.

This meant the erection of a \$100,000 reinforced concrete building as an addition to the plant of the Acme, a separate establishment devoted entirely to this new industry with especially designed machinery and apparatus. The plant is finished and so is the experiment. At the rate of 10,000 tons of the purest of white lead a year is now being turned out, and it is not touched by a human hand from the time the pig of lead is dropped into the furnace on the top floor until the product has, in its various stages of development, dropped to the basement and been pumped again to the second floor, finished.

In the old process in vogue until this was completed, the metallic lead was cast into perforated discs. These discs were packed into earthen pots or retorts, flooded with acetic acid. About eighteen pounds of lead was put into each pot. These pots were arranged in layers piled

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was also placed around the edges of the pots, which were allowed to remain buried in tan bark for from 90 to 120 days, while chemical action caused by the heat of the fermenting tan bark and the acid slowly converted the metallic lead into the white lead used for paint. The corrosion was never complete and anywhere from 65 to 85 per cent of the metallic lead only was converted into the finished product. Being hard and brittle it was ground and then floated and pumped to the drying pans of copper. It necessitated the employment of forty men for every stack of pots.

It is by force of contrast the full significance of the new or "mild process" is brought home, and it is then realized that the Detroit plant will revolutionize the manufacture of white lead the world over. To Detroit, and to the Acme interests is due the credit of making one of the greatest scientific discoveries of the age practicable.

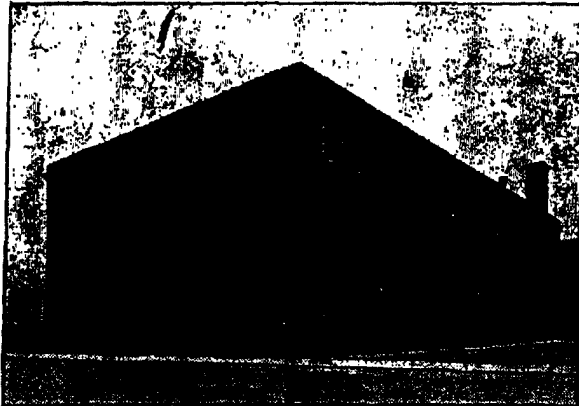
In the new process as operated at the new Acme plant, nothing but steam, water and carbon dioxide gas are used, resulting in bringing to the drying pans, in finished product, 125 pounds of white lead for every 100 pounds of metallic lead placed in the starting furnace. During every ten hours, the plant is in operation 100,000 pounds of metallic lead is melted, passing from the bottom of the furnace into a very hot, steam filled tank, where it becomes a soft blue substance, as thin as thin mud, and in this state very susceptible to chemical change. From there it goes to large metallic duplex cylinders where it is kept continually agitated with water in the presence of air which is forced through the cylinders at low pressure. The product is then an orange or ochre color. This part of the operation is complete in less than two days. The product is then passed through a separating system which removes any slight metallic residue and is then pumped into the carbonating cylinders, somewhat similar to the cylinders already described.

In the last cylinder the basic hydroxides of lead, as they are called, in the presence of a considerable amount of water are subjected to a current of carbon dioxide gas, which in less than two hours converts the hydroxides into white lead, which containing no impurities, is ready to pump into the drying pans without any washing or separating whatever. The finished product of purest white lead was seen laying in the drying beds of canvas stretched upon cots of wires with shallow pans beneath to catch the moisture that filters through. The fact of the lead being free from impurities renders the expensive copper drying pans unnecessary. The finished product never grows hard and that part destined for commercial use is passed on to the grinding mill where it is mixed with oil into the paste form seen in the can when bought from the hardware stores.

In the new process no alkalis nor tan bark are required. Twelve men tend the entire plant for twenty-four hour runs, and everything is done by gravity and machinery. In its soft condition the product is pumped everywhere, and thus a minimum amount of labor is required. Mr. Rowley not only invented the process, which is covered by broad patents, but also the machinery by which the white lead is made. No pots are required, no lumber is necessary.

There is not a particle of the lead lost.

New Process of making White Lead works great change in paint industry.



The new building of the Acme White Lead & Color Works in which white lead is made by the "New Mild Process"

one upon the other with boards between each layer, and each layer resting on several inches of ground tan bark, which

an unlimited field of enterprise, they have also given Detroit something worth having.

0007-SWP-042848

DOOLEY ON ROOTERS' CLUB

Very Clever Take Off on Mr. Dooley
by "Acme Rooters."

L. J. Farquell of Detroit, who represents the Acme Lead & Color Works of Detroit, has been in the city for the past few days in the interest of his company's issue of preferred stock. Their plan of placing this preferred stock in small lots among the people who are users of paint, instead of allowing it to be absorbed by the large investors, has proven a marked success, and a number of local investors have already subscribed for some of the stock which pays six per cent and the company pays the tax, while the dividends are payable quarterly. Mr. Farquell is arranging for a party of local capitalists to visit the factory within the next week or two. R. L. Jackson is assisting him in the work here.

The Acme White Lead & Color Works has grown to its vast proportions not only through the merit of its products, but also by the originality of its methods. As much attention is paid to cultivating the interest and loyalty of its employees as to advertising its products. Mr. Farquell handed us a recent copy of the Acme Quality Rooters which is published frequently for the benefit of the factory employees, and which is watched for more eagerly than a daily paper. For instance, the following very clever take off on Mr. Dooley graces the front page:

"I see be th' pa-a-pers," said Mr. Hennessy, as he tossed a nickel over the bar to Mr. Dooley, "that they've orginized a Rooters' Club out to th' big Army Wurks. Phwat th' devil is a Rooters' Club, I dunnow?" "Hav ye iver bin to a ball game, Jew?" answered Mr. Dooley, slowly moving a tall one over toward the impatient Hennessy. "Ye hev, so. I moind well one day las' week ye kem in th' durs that hoarse an' dhry ye sudden' shpake, an' ye hed to mek aines wid yer fingers that ye wanted a shell av beer about two' fut high to cool yure polpes. Thot day the Tigers won—a ye hollered 'Horray for Hughey' 'till ye near split yure wun good lung. Ye did, so. But yeatiddah, Jaww, whio. thot gang av Frinchies from Cleveland, Bill Bradley, Otto Hess, an' thot bunch of frog aters, did the byes up' ye kem in the Curr, called for a couple av fingers av three star, an' begun to tell how ye wud av yanked Bill Donovan in the fourth, an' how thot fool Jennings c-d-d-a' run a mule team, an' anyway a mule team wux about all he hed to run. So heer ye tell it, there wux niver a moe oo th' tame that had intelligence enuf to

reckernize a ball bat if he saw wan, or strength enuf to yuse it if he reckernized it. Ye're no rooter, Hennessy.

"But thar's Little Nolan, now. He kem in th' night we was, an' says be, 'Martin,' he says, 'they're a foins team,' says he; an' he druck his beer an' wint out shakin' his head, pleased-like. An' yeatiddah, when they lost, he kem in just after ye wint out. 'We lost,' says I. 'We did thot,' says be. 'The Tigers 're so good,' says I. 'They're the gamest bunch av ball players thot iver jammed a horse hide,' says be. 'They wusn't beat 'till th' last man wux out in the ninth,' he says, 'an' at thot,' says I, 'they'll cum back to-morra' an' they'll mek thim Frinchies thot tired chasen three base hits thot Larry'll hav to eat the umpire to call the game in th' sixt,' he says. Nolan's a real rooter, Jaww.

And thot's phwat thot Rooters' Club is doin' fur th' Army. They're sayin' nawthin' about anny mistakes thot anny av th' byes around th' plant moight mek—an' av coorse they're mistakes med there wance in a while, same as anny place. But they don't ull thim outside, Jaww. All they till is good, an' it ain't loole' nawthin' in th' tillin'. They won't yuse nawthin' but Acmy Quality goode anny plac, or lave anny av their frins or reishuns do it ayther. They do say, Hennessy, thot wan av thim won't lave his childer ate maple sirup on their pa-an cakes mornin's but take it looks like vernish, but don't hev th' Acmy Quality label. I tell ye tis so."

"Well, ye won't smile so frequent whin all thim rooters quite dhrinkin' wud aloyhol wid a noggin' av liamed ile fur a chaser, just cause the Acmy handise the goode."

"It's aisy to say, Jaww," said Mr. Dooley

sadly, "thot ye ain't no rooter. Thot wudden' be rootin' Hennessy, thot wud be dom fallshuns, or eueyoids."

The Saginaw Company

MAKE MICHIGAN PAINT CENTER

MANAGEMENT OF THE ACME
WHITE LEAD & COLOR WORKS
OF DETROIT HAS AMBITIOUS PROGRAM.

WHITE LEAD MANUFACTURE TO BE REVOLUTIONIZED

New Process Owned Exclusively By
This Progressive Plant Makes It
Possible to Corrode Lead in
Six Instead of 120 Days.

Special to The Courier-Herald:

Detroit, Mich., June 17.—Within a few years Detroit is likely to be the world's paint, varnish and white lead center, if the plans of the Acme White Lead & Color Works of this city are carried out. Already this plant enjoys the distinction of being the largest of its kind in the world, and growing so rapidly that the day seems not far distant when it will have developed the paint and varnish business to such a capacity that Michigan will be the leading state of the union in this respect.

A few days since a party of Saginaw business men visited the mammoth plant in this city and were more than agreeably surprised to note the magnitude of its work and the enterprise and ambitions of its management. Within a half year the company has added a white lead corroding department, where it is revolutionizing the white lead business of the world. This department bids fair to be the most talked-of departure in lead business that has ever excited the attention of the world's scientists and business men, and already it has commanded the respect and investigation of the government's experts, as well as those from many states and colleges.

Corrodes Lead in 6 Instead of 120 Days.

In this plant pig lead is corroded in six days, under what is termed the "mild process." For centuries past the corrosion of lead has been accomplished under somewhat medieval conditions, requiring from 120 to 130 days, and then with a partial loss of the material and at a considerable expense. The "mild process" employs six days, no loss of material and very little expense. It is a patent process that is so simple one is impelled to ask why no one had thought of it out years ago, and yet in its simplicity not a thing lacks to turn out the best product at the minimum expense.

It is in this department of the already large Acme establishment that promises a greater future than any other part, and it is this department that means great things for the future of the

paint and varnish center.

The trip through the lead works was the most enjoyable part of the visit. Here was found an absolute fire-proof building, nothing employed in its construction being inflammable. And here the visitor is shown the various stages through which pig lead passes before, after a period of six days, it is turned out perfect lead rust. Under the old Dutch process the lead was moulded into discs weighing about one pound each, and from sixteen to eighteen of these discs placed in metal pots containing acetic acid. These pots are arranged in layers, piled one upon another, board floors separating the different layers, each of which rests upon several inches of ground tan bark, which is also placed about the pots. These pots remain buried in the tan bark for a period averaging about 125 days, during which the chemical action caused by the heat of the fermenting tan bark and the acid, slowly converts the metallic into carbonate of lead, which is commonly termed "white lead." During all of this time the lead is buried and beyond the control of workmen. In addition it is a process requiring heavy expense, as much labor is employed in taking down the stacks and removing the pots of corroded metal, such as is also employed in building them and conveying the metal. The corrosion under this process has never been complete and requires a vigorous treatment of crushing, rolling, screening, grinding and floating to prepare the partially corroded lead, tanbark and metallic lead. This in itself is also an expensive operation, and not entirely satisfactory.

To the layman the difficulties and handicaps of this process become at once apparent. It is costly and incomplete, requiring the use of great quantities of acids and expensive tan bark, pots, lumber, which must constantly be replaced, and does not develop satisfactorily.

New Process Is Much Superior.

All of these drawbacks are overcome in the "mild process," which neither requires acids, the burying of metal, the delay of three months for fermentation purposes, or the expensive outlay for tan bark, lumber, pots, etc., formerly needed. This saving alone would justify the new process, but it has other advantages, the full theoretical chemical increase of 25 per cent for metal corrosion being secured, as well as the utilization of all parts of the pig lead, which can be of the ordinary market product and not a special metal made for this purpose.

The new process has passed the experimental stage, its product having sold for five years and been thoroughly demonstrated. It is the invention of W. H. Rowley, formerly of St. Louis, but now the superintendent of this department of the Acme plant. The process is as follows: The lead after melting is at once atomized into an impalpable powder. Then the atomized lead is distributed by pumps and gravity to the desired places. The finely powdered lead is pumped into large metallic duplex cylinders supplied with powerful agitators, where it is kept continually agitated with water in the presence of air which is forced through the cylinders under low pressure. This operation is complete in less than two days. It is then passed through the separating system which removes any slight metallic residues remaining and is then pumped into the carbonating cylinders which are somewhat similar to the cylinders already described. Here the basic hydroxides of lead, as they are called, in the presence of a considerable amount of water are sub-

jected to a current of carbon dioxide gas, which is less than its weight, while the hydroxide is white lead, which contains no impurities and is ready to be pumped into the drying pan without any washing or separating process whatever.

No Acid Is Used.

No acid, alkali, tan bark or pots are required in this process. It is simplicity and economy itself as well as practicality, and produces the best white lead the market has ever afforded.

With this great department still in its infancy, and the paint and varnish plants using for their own needs a considerable proportion of the output,

just what the future has in store for this plant cannot be deemed beyond doubt. Ordinary developments mean that in a few years all lead manufacturers in this country will be seriously handicapped by the superior quality and reduced cost at which the Acme company can market its product and export or later branch establishments will have to be placed about the country, all of which will aid the Acme company in its effort to become a center of the paint and varnish business of the world.

Management Aggressive and Capable.

Aside from the superior and exclusive process this company uses in the corrosion of pig lead, its established business and recognized standing as a leading paint and varnish manufacturer, the ambitions and energies of its officers and management is a power for great good. The company is perhaps as ably managed as any in the United States, its officers and directors taking a keen personal pride in its affairs and closely devoting their entire time to its policy of progression and advancement. William L. Davis, the president, has long been identified with it, holding a large share of the stock and having been at the helm since 1884. When the company first branched out, Thomas Neal, the secretary and general manager, is also a large stockholder, and the Acme plant of today, the most modern and successful of its kind in the world, represents the combined energy, ability and successful management of these two and other able business men. Every detail of the business has for years had their personal attention and both men are to be found at their desks during all hours of the business day. H. Kirk White and A. E. White, two of Detroit's best known capitalists, are also officers of the corporation, and although interested in scores of other large institutions take a very keen interest in the development of the Acme plant.

The office building of the company is said to be the finest in the kind, and its established policy of securing and holding business is everywhere recognized as the most aggressive and successful pursued by any large paint or varnish house in the world. Within a short period of less than twenty years it has made all of its products known the world over, and its trade upon every brand established. What has been accomplished in this one direction will be more than duplicated in the white lead department, which, with the new and better process, is sure to revolutionize this business and command attention to Michigan as the leading state in the union in this manufacture.

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It is a good authority that the Acme White Lead Works of Detroit has taken \$30,000 out of Plymouth in subscriptions to stock in the concern. It is none of our personal concern where and how the people of the village invest their surplus cash. But what a great thing for Plymouth and the money holders as well would it be if the dollars were invested in enterprises that would benefit this town, instead of some other town? Why not use this money to build up Plymouth and Plymouth enterprises? There certainly are openings in all directions, if advantage is taken. Keep your money at home, where you can see for yourself how it is being handled. It can be made to pay out as well as in other towns. *about it! Plymouth paper 10/*

Aug. 26-28
August Courier-Herald
 "THE PAPER THAT GOES HOME"

MICHIGAN EMPLOYERS LEAD IN WELFARE WORK

VISIT TO ACME PAINT PLANT
 SHOWS MOST PROGRESS
 SEVEN METHODS.

One hears much these days about the work that is being done by the large manufacturing concerns for the betterment of their employes, to make them happier and to educate them for higher fields. This all sounds very fine and we are interested in it, but not so much so until it is brought closer home to us, until we find that some progressive firms in our midst are really doing these things, until we can see them, not just read of them. A trip to Detroit recently and a visit to some of the magnificent plants there was most gratifying. Truly the newer plants are wonderful examples of care and consideration, of attention that has been given to the little things that make for the comfort of their people. We have right here in Michigan as progressive firms, as thoughtful employers as one ever read of. One of the most noteworthy of these is the Acme White Lead & Color Works of Detroit.

At this plant they have planned work rooms that would be better than their dreams come true to many a workman of a few years ago. The rooms are large, light and excellently ventilated. Some even have window boxes and hanging baskets here and there of growing things brightening the corners with their gay colors. There are individual lockers set away from dust so that hats and coats are well taken care of. Tennis courts and a well laid out baseball diamond afford opportunity many a noon for friendly combat. An attractive cafe where most palatable lunches are served every noon for a nominal sum does away with the necessity of the

...the library is a delight to see. Scarcely is a man enrolled than he is found enthusiastically pursuing some line of reading. Perhaps he finds near at hand for the first time books he has always wanted to read and can hardly wait until he has been through them all. Many a man has been forced by necessity into the shop or factory before he has attained the education he would like or that is necessary for his advancement. Here he finds the opportunity to complete, in his odd moments, his particular line of study, to prepare himself for success along higher lines. A reading room with the latest magazines, any number of easy chairs and a piano conveniently adjoins the library and offers many a pleasant hour—and all who will may come in.

It is just such work as is being done by the Acme White Lead and Color Works of Detroit that means so much to the great masses of our people—that will bring them to higher, fuller lives and greater happiness. And it should be a source of much pride that our own captains of industry realize this and are doing their utmost to further the work at home.

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(Reproduced from The Saginaw Courier-Herald of June 18th)

The Saginaw Courier-Herald

MAKE MICHIGAN PAINT CENTER

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New Process Owned Exclusively by
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A few days since a party of Saginaw business men visited the mammoth plant in this city and were more than agreeably surprised to note the magnitude of the work and the enterprise and ambition of its management. Within a half year the company has added a white lead corroding department, where it is revolutionized by the white lead process of the world. This department will lead in the world and the department is being built on that has ever excited the attention of the world's scientists and business men, and already it has commanded the respect and investigation of the government's experts, as well as those from many states and countries.

Corrode Lead in 6 Instead of 120 Days

In this plant pig lead is corroded in six days under what is termed the "mild process." For centuries past the corrosion of lead has been accomplished under somewhat medieval conditions requiring from 120 to 150 days, and then with a partial loss of the material and at a considerable expense. The "mild process" employs six days, so less of material and very little expense. It is a patent process that is so simple one is impelled to ask why no one had thought of it centuries ago, and yet in its simplicity not a thing back to turn out the best product at the minimum expense.

It is this department of the already large Acme establishment that promises a greater future than its great past, and it is this department that means great good for Michigan as a paint and varnish center.

The trip through the lead works was the most enjoyable part of the visit. Here was found an absolute fire-proof building, nothing employed in its construction being inflammable. And here the visitor is shown the various stages through which pig lead passes before, after a period of six days, it is turned out perfect lead rust. Under the old Dutch process the lead was inclosed in three weighing about one pound each, and from sixteen to eighteen of these discs placed in metal pots containing acetic acid. These pots are arranged in layers, piled one upon another, board covers separating the different layers, each of which runs upon several inches in its length, which is also placed about the pots. These pots remain buried in the tan bark for a period averaging about 120 days, during which the chemical action caused by the heat of the fermenting tan bark and the acid slowly converts the metallic into carbonate of lead, which is commonly termed "white lead." During all of this time the lead is buried and beyond the control of workmen. In addition it is a pro-

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some regularity, the process is carried on in a continuous manner, the material being fed into the mill and passing through the rolls of the mill. The material is then fed into a large tank where it is treated with a solution of caustic soda and water. The material is then fed into a large tank where it is treated with a solution of caustic soda and water. The material is then fed into a large tank where it is treated with a solution of caustic soda and water.

To the layman the difficulties and hardships of this process become at once apparent. It is costly and complicated, requiring the use of great quantities of acid and expensive tank cars, which must be replaced, and does not develop satisfactorily.

New Process Is Much Superior.
All of these drawbacks are overcome in the "acid process," which neither requires acids, the burning of metal, the delay of three months for fermentation purposes, or the expensive cylinder for tank cars, tank cars, etc., formerly needed. This saving alone would justify the new process, but it has other advantages, the full chemical analysis of the lead shows that the new process is 15 per cent for metal conversion being secured, as well as the utilization of all parts of the old lead, which can be of the ordinary market product and not a special metal made for this purpose.

The new process has passed the experimental stage, its product having sold for five years and been thoroughly demonstrated. It is the invention of W. H. Rowley, formerly of St. Louis, but now the superintendent of this department of the Ames plant. The process is as follows: The lead after melting is at once comminuted into an impalpable powder. Then the powdered lead is distributed by pumps and gravity in the desired places. The finely powdered lead is pumped into large metallic duplex cylinders supplied with powerful agitators, where it is kept continually agitated with water in the presence of air which is forced through the cylinders under low pressure. This operation is complete in less than two days. It is then passed through the separating system which removes any slight metallic residues remaining and is then pumped into the carbonating cylinders which are somewhat similar to the cylinders already described. Here the basic hydroxide of lead, as they are called, in the presence of a considerable amount of water are subjected to a current of carbon dioxide which contains no impurities and is ready to be pumped into the drying pan without any washing or separating process whatever.

No Acid Is Used.

No acid, alkali, the bark or pots are required in this process. It is simplicity and economy itself as well as practicality, and produces the best white lead, the market has never offered.

With this great development still in its infancy, and the paint and varnish plants using for their own needs a considerable proportion of the output,

just what the future has in store for this plant cannot be definitely told, but it will be very successful beyond doubt. Ordinary developments mean that in a few years all lead manufacturers in this country will be seriously handicapped by the superior quality and reduced cost at which the Ames company can market its product and secure or later branch establishments will have to be placed about the country, all of which will aid the Ames company in its effort to become a leader of the paint and varnish industries of the world.

Management Aggressive and Capable.

Aside from the superior and exclusive process this company uses in the conversion of pig lead, its established business and recognized standing as a leading paint and varnish manufacturer, the ambition and energy of its officers and management is a powerful factor in its success. The company is perhaps as ably managed as any in the United States. Its officers and directors taking a keen personal pride in its affairs and closely devoting their entire time to its policy of progression and advancement. William A. Davis, the president, has long been identified with it, holding a large share of the stock and having been at the helm since 1914, when the company first branched out. Thomas Reed, the secretary and general manager, is also a large stockholder and the Ames plant of today, the most modern and successful of its kind in the world, represents the combined energy, ability and successful management of these two and other able business men. Every detail of the business has for years had their personal attention and both men are to be found at their desks during all hours of the business day. Mr. Reed's last known inspection are at the offices of the corporation, and although interested in many of other large institutions take a very keen interest in the development of the Ames plant.

The office building of the company is said to be the finest in the land, and its combined policy of securing and holding business is everywhere recognized as the most aggressive and successful pursued by any large paint or varnish house in the world. Within a short period of less than twenty years it has made all of its products known all world over, and its trade has been accomplished in this one direction will be more than duplicated.

W. H. Rowley, Superintendent of the Ames Plant, is shown in the photograph on the right.

W. H. Rowley, Superintendent of the Ames Plant, is shown in the photograph on the right.

The Men Behind the Guns

"... it's a matter of 'is country when the guns begin to shoot.'"—KIRKLAND.

Thomas Neal

Every man who, during the earlier days of Association work, knew "Tom" Neal, knew an indefatigable and highly productive worker, who usually got results.

The details of his career are outlined in the following summary, from which he omits any reference to his many years of work for the welfare and advancements of the industry as a whole. That will be supplied as an appendix, by his putative biographer.

Thomas Neal speaking:

Thomas Neal was born on September 27, 1888, to Henry and Mary (Proctor) Neal, in Corunna, Ontario—a small village situated on the Canadian shore of the Saint Clair River. His parents actually resided in Detroit, Michigan, but an epidemic of small-pox which broke out in that city shortly before his birth, had caused them to remove temporarily to Corunna, where his paternal grandparents made their home. Soon after his birth, the family returned to Detroit, where he received his education in the public schools and a business college.

In 1873 at the age of 15, he got his first job—that of "olier" in the factory of the National Pin Company. It was his task to stand atop a ladder and squirt oil into the boxes through which a power shaft, suspended from the ceiling, received its lubrication. From this department he was moved from job to job—day shift to night shift and back again—until he reached the goal of his first ambition—the post of bookkeeper and office manager.

In 1890 desiring to broaden his experience, and further to qualify himself to enter business on his own account, he accepted an opportunity to reorganize the office and accounting system of a concern dealing in real estate and insurance.

While he was engaged in this work, through savings and prudent investments, he accumulated a small capital which seemed to justify him in striking out for himself. Accordingly, in December of 1894, in association with his brother-in-law, William L. Davies, he organized the Acme White Lead and Color Works. The business weathered the panic of 1893, prospered and became one of the leading units in the paint and varnish industry. Both Mr. Neal and Mr. Davies continued their association with this company until 1921 when, concluding that the time had come for them to retire—Mr. Davies was then in delicate health—they arranged to sell the business to Sherwin-Williams Company. As a subsidiary of Sherwin-Williams, it continues to be one of Detroit's important business enterprises.

Early in this century, Mr. Neal was one of a group of five men who organized the Detroit Board of Commerce.

In 1906, or thereabouts, he was elected to the board of directors of the First National Bank, a capacity in which he continued to serve until 1931.

In 1910, General Motors Company encountered difficulties. A large loan was needed to keep the business alive. Such credit was granted by a banking group on condition that a new board of directors be elected to supervise the company's activities until the loan could be repaid. Mr. Neal was elected to this new board and, in successive steps, became a member of the Executive Committee, President and finally, Chairman of the Board.

During the five years of his association with the company a number of unprofitable units (who remembers the Carter car, the Welch-Detroit, the Welch-Portia, the Elmore and the Marquett or the Rapid and Reliance trucks which were merged into General Motor Truck Company?) either were liquidated or consolidated with more profitable subsidiaries. Competent engineering, research and manufacturing units were organized and many

competent men were added to the staff, among them Tracy Lyon, Henry L. Barton, Walter Chrysler, W. H. Alford, Miron Prentiss and James T. Shaw. At the end of this period the loan was repaid, a large cash surplus had been created, payment of dividends had been resumed and, on the basis for what proved to be a brilliant future, thus established, the business was turned back to the stockholders.

During the World War (1914 to 1918) he served, at the request of the United States Government, as Chairman of the War Service Committee of the Paint Industry and during that time specifications were prepared for nearly all departments of the United States Government. The Committee also functioned in many other ways for the Government.

In 1921, upon sale of the Acme White Lead and Color Works, Mr. Neal intended to retire from active business. However, in 1927, he was persuaded to join his son in organizing the Equitable Trust Company, of Detroit, and is still Chairman of the Board of that institution.



Thomas Neal

In 1932, he became a member of the board of directors of the Crowley-Miller Company, in which connection also he continues to take an active interest in business affairs.

In May, 1884, he married Elizabeth May Davies. They have one son, Kirke A. Neal, and three grandchildren, Dorothy Kirke, Diane Elizabeth and Mary Sigrid. Mr. Neal is a member of the Episcopal Church and for many years was a vestryman of St. Paul's Cathedral, in Detroit. He is a member of Oriental Lodge, F. & A. M., and of the Detroit Commandery, Knights Templar. His clubs are The Detroit Club, the Detroit Boat Club and The Country Club of Detroit.

Thomas Neal's biographic commentator speaking: Mr. Neal is, of course, a member of the National Association's "Fifty Year Club" and, if that honor is conferred for services rendered the industry he should have the "gold bowl" "for keeps."

This biographer was closely associated with him in the early promotion of the formative association work. In his "Reminiscences and Comments" Mr. Neal's name is indexed fifteen times. He was "in with both feet" at the start of the Educational Bureau and the Save the Surface Campaign and largely shaped their destinies. It was he who originally suggested limitation in the great variety of tints, etc., then manufactured in infinite variety.

The proposal was launched in 1907 at a dinner of the Michigan Chapter of the American Institute of Architects, on the evening of June 4th, this writer having been selected to "put over" the first attempt at "Fashions in House Paints." The proposal for the year was "Copper Brown" and "Copper Verde." Though the idea was a "dud" then, it is now "going strong," as "Styling with Paint."

He was one of the founders of the "Save the Surface Campaign" which is also still "going strong."

"Straight as a string," kindly as a "Sister of Charity," intelligent "as they make them," and as friendly as a "lodge brother," may his days be long in the land and everlasting in the heart of the industry he has so unselfishly served!



A Practical Hiding Power Comparison of Lithopone and Titanium-Calcium Pigments in Commercial Flat Wall Paints

[A paper presented to the October, 1939, Meeting of the New York Paint and Varnish Production Club.]

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The subject of hiding power is at best a controversial one, and has been made so not only because of the difficulty of accurate measurement, but also because of the disagreement among investigators as to the scientific fundamentals involved. The result has been that the "Trade" in general has not had much confidence in any published figures, few as they are. The New Jersey Zinc Co. is frequently asked for the hiding power of their pigments and has hesitated to assign a value to them. The result has been that since some published figures show titanium-calcium a much better dollar value of hiding than lithopone, and since we have been unwilling to confuse the issue by giving a set of our own, we endeavored to determine if a definite figure could be assigned,—providing commercial flat wall paints only were considered.

You may well ask yourselves, "why is it difficult to assign a value to a pigment that will represent its hiding power?" The answer is that no one value can be assigned that will be even close to accurate unless we know the particular formula, because from formula to formula the same pigment varies over wide limits. R. H. Sawyer, of the Research Department of the Krebs Pigment and Color Corp., in an article entitled "Hiding Power," appearing in the 1938 edition of "White Pigments," publication of R. T. Vanderbilt Co., had this to say:

"... it is impossible to assign to any pigment an absolute hiding power value having much meaning, since it is easily possible to vary the hiding power value of a single pigment as much as 100% simply by varying the paint composition in which it is used. An absolute pigment hiding power has no meaning except under conditions of use very closely approximating the conditions used in testing."

A committee of the A.S.T.M. composed of a number of very capable investigators has been working on the subject for a number of years. Realizing the need of a control method

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