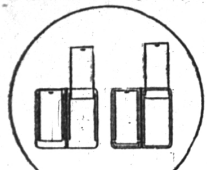
INVENTIONS AND IMPROVEMENTS

Notebook Convenience.

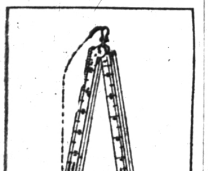
The arm rest that the bookkeeper finds so useful in writing up his accounts has been duplicated in modified form for the benefit of the individual who has to use a notebook to any extent. Many collectors, solicitors and others having work of a similar character are required to make frequent entries in pocket-size notebooks while resting these either on their hands or knees. This is obviously very inconvenient, and a German inventor has devised an improvement in notebooks which he believes overcomes this difficulty, at least, to a great extent. Inside the book cover he provides wire guides extending lengthwise. Upon these guides a stiff handrest slides, having its edges so arranged that it cannot be entirely disengaged. Two of these handrests are provided, one



on each cover. When not in use they are concealed by the book cover. In making entries the upper portions of the note leaves the handrest is not essential, but when these entries have to be made on th lower half of the leaf their use does much to facilitate neatness and legibility. The stenographer's familiar notebook accomplishes much the same result by simply binding the leaves on the short end and manipulating the leaf upon which the record is being made so that the hand is never without support.

Chain on the Rule.

The carpenter probably uses his two-foot rule about as often as any other tool and accordingly mislays it a proportionately larger number of times. If he does not mislay it, it is lost by falling from his pocket, even though up-to-date overalls have a special pocket designed as a rule receptacle. An ingenious New York man, however, proposes to manufacture rules in which the main joint, or hinge, carries a stem and loop designed to be attached by any of the common methods to the suspender buttons. If the mechanic's wife does not keep his suspender buttons up to the regulation number, he, of course, can utilize any other button that is convenient. The attachment device is much like that used on the key chains that had such a vogue several years ago, and which still constitutes a staple article of trade of the small peddler. The stem and loop are so designed that they do not interfere with the opening of the rule members to their fullest extent. In other respects the rule does not differ from the standard article. The New York inventor of this improvement in design claims



that its embodiment does not interfere with the convenient and ready use of any rule.

New Tortosa Observatory.

The new observatory of physical astronomy at Tortosa, in Catalonia, is one of the finest of the kind. One of the chief objects of the authorities of the new institution is to discover the relations which may exist between magnetic, electric and solar disturbances. These phenomena are to be registered at once and regularly so they may be studied seriously. Of the seven buildings in the establishment two are devoted to magnetism, one of which is reserved for instruments of variation and the other is used for absolute determinations. Another of the buildings is devoted to meteorology and electricity, another to seismology, and one pavilion is entirely given over to physical astronomy. All these various departments are well supplied with the most modern apparatus and inventions for the study of the various subjects, and all that is now desired is a monthly record of the work of this observatory for the benefit of the world at large.

Railways Carry Aid for Injured.

Water transports have long testified to their valuation of human life by their life boats buckled to their sides and their life preservers strapped to their berths, and land transports in the form of at least one line of steam cars follow suit with chests containing supplies for first aid to the injured. These are carried on all trains of the line, including passenger trains, freight trains, cabooses, and work trains. In a state not covered by this line the governor has approved a law recently passed requiring railroads to have locomotive boilers inspected regularly and authorizing the appointment of a state boiler inspector.

An Illustration.

"Our pastor preaches on the spirit of greed next Sunday morning."

"Sorry I can't hear him. The trouble is that I have to stay at home and prepare a case that is likely to net me a couple of hundred at least."—Cleveland Plain Dealer.

FOR YOUNG READERS

Pa an' Ma.

When ma comes runnin' down th' stair
She stops right in th' door
An' sort o' makes a picture there,
An' taps upon th' floor
Till pa looks up, an' then she cries,
"Well, how is this for style?"
An' pa jus' grunts an' drops his eyes—
An' then I see him smile.

My pa sometimes he gets so mad—
It's awful how he blows
About th' money ma has had
To keep herself in clothes.
An' ma she tells him how she's tried
To please him all the while.
An' pa he snorts an' looks aside—
An' then I see him smile.

An' pa he growls an' looks so grim,
An' then begins to knock.
When ma upstairs calls down to him,
"Please come an' hook my frock."
But ma she sof'ly smoothes his hair
In such a lovin' style,
Jus' where th' gray is comin' there—
An' then I see him smile.

My pa has got a temper bad—
He's always full of fight;
He scolds at ma an' gets so mad—
But ma ain't scared a mite.
An' yesterday I said to pa—
"Twas after tea awhile—
"I guess you think a lot of ma"—
An' then I see him smile.

—Cleveland Plain Dealer.

How to Distill Water.

There is much use for distilled (pure) water in every house. No eye wash, for instance, should ever be used unless made with distilled water. But is costs something to get a little distilled water from the drug store, so most people do without it.

Your home need not do without it, however, for you can easily keep it supplied with distilled water—a small quantity, at least.

Take a couple of bottles and prepare a cork that will fit so tight into the necks of both bottles that they will be airtight. Bore a hole through

the cork. Now fill one bottle with water up to the neck (See Fig. E), then lay it over an alcohol lamp, while the other bottle (C) rests on a kitchen vessel on an exact level with the other bottle.

Over C hang a funnel with its narrow end either pinched or plugged with cotton so that when filled with cold water it will release the water only drop by drop on the bottle (C) beneath.

As the vapor from the heated water in E enters C it will condense, and you will soon have a small quantity of distilled water.

The Left Hand.

It is strange that so strong a prejudice against the left hand has lived and increased for centuries when there is no natural or physiological reason for it. Examination of the skeleton of a person who was strong, healthy and well formed in life shows that the bones of the left hand and arm are just as large and capable as those of the right.

The study of physiology shows, too, that the muscles and ligaments and cartilages that fastened that person's arms to his body and gave them the power of motion were made to do their work just as well on one side of the body as on the other. If the left side was the weaker it was because of the failure to exercise it as freely as the other.

Monkeys, cats, dogs and other animals would be likely to smile—if they could—at the absurdity of their paws being rights and lefts, or that the paw on one side could do more than the paw on the other. And yet we hear boys and girls say that they can throw a ball, handle a racket, or do anything else only with the right hand, which seems to prove that they are not so well formed as the animals named. On the contrary, a human being is the most perfectly formed of all creatures.

It is all a matter of education. Children should be taught to use the left hand as much as the right. There would be no difficulty about it at all; but when a person who has been taught to use the right hand to the exclusion of the left attempts to use the left, of course he finds it awkward and discouraging. Let him persist, however, and he will soon be able to use one hand as well as he does the other.

The White Buffalo.

The disappearance of the stuffed white buffalo from the Kansas statehouse, whence it was taken by its owner, who left it on exhibition there years ago, recalls the day when the white buffalo figured in hunters' tales. There was a tradition among the hunters that some one had hung up a reward of $1,000 for the skin of a white buffalo. There were white buffaloes—albinos, such as are found at rare intervals in all the families of the animal kingdom—but the number of those which existed purely in the imagination was in wonderful disproportion. Every buffalo hunter could tell stories of having seen and pursued white buffaloes. Many a hunter has been sent on a wild goose chase by false reports of this character. In 1873, for example, old "Ben" Canfield, who roamed the plains, with his tall, gaunt wife for a companion, followed a bunch of buffalo from the northern edge of what is now Oklahoma to the sand hills of Nebraska thinking to kill a big white bull at the head of his harem of cows. And, after three weeks of patient stalking, Canfield did kill the bull, only to find that he was covered with a coat of whitewash, which gave him the appearance of being white in fact. An explanation of this phenomenon would not be needed by people familiar with the natural line beds of western Kansas. The habit of the buffalo is to roll in every pool of water or hole of mud which he comes to. The well-known "buffalo wallow," still to be seen over the great plains, was the product of this habit. Canfields' buffalo had simply been rolling in a bed of the native lime, which coated his hide, when dried in the sun, with a kind of plaster. And no doubt these lime holes could account for many of the white buffaloes so often reported by hunters.

Game of Noted Man.

The hostess begins by saying: "I know a celebrated poet, the first part of whose name is very black, and the last is an elevation."

The player, responding "Coleridge," in turn describes the name of some other noted person. For instance, "Shakespeare," saying: "I know a noted author and poet, the first part of whose name people do when cold; the last part is a weapon of warfare."

Only give the profession, nothing else. The following names readily lend themselves to this simple but instructive little game:

Words-worth.
Shell-ey (Shell-lea).
Church-hill.
Web-ster.
Wal-pole.
Washing-ton.
Long-fellow.
Black-stone.
Isaac Walton (Eye-sack-wall-ton).

Animal Sextons.

How rarely do we meet with the dead body of an animal—a bird, a mouse or a mole, when we walk about in the woods or fields. This is because the beetles are always at work, and their work is to bury the dead. Indeed, they are well called the sextons of the animal world. Though very small themselves, they bury bodies three and four times their own size; ay, and much larger than that. A beetle has been known to bury a whole rabbit. Four beetles were once watched for fifty days, and in that time they buried four frogs, four birds, two fish, a mole, some grasshoppers and some other things besides. Burying beetles abound mostly in temperate climates, because in these climates things decay most slowly, and there is the most work for them to do.

It is the beetles that keep sweet and clean the meadows, where cows and sheep feed, as they bury the dung and vegetable refuse by burrowing it into the soil, and bringing up the soil that is underneath to the surface. In four days a meadow will be perfectly cleared if given over to the beetles' care.

Why Lightning Rod is Pointed.

Many boys and girls have wondered, no doubt, why a lightning rod is always pointed instead of having a blunt end, and also why the point is made of metal that does not easily corrode.

The object of a lightning rod is to empty a cloud of its electricity noiselessly and harmlessly, and it must be pointed because a point offers no resistance to the discharge. The degree of resistance is in proportion to the surface of the object, and a point has the least possible surface.

If the rod had a ball or a knob on the top, the discharge would be violent. The difference is shown in discharging a battery. You will be surprised to hear, perhaps, that the full charge from a large battery may be passed harmlessly through your body if it be received through the point of a needle. The same charge received through a ball tipped discharger would kill you instantly. Besides, a point attracts the lightning, and thus keeps it from striking other parts of the building. The point is made of metal that does not easily corrode because corrosion or rust, increases tne resistance, and a rusty point, therefore, might cause a violent and destructive discharge.

If you have a lightning rod on your house, no doubt it has emptied many a cloud of its electricity without any body's knowing anything about it.

Toy That Will Talk.

Would you like to make a talking machine? If you have a toy trumpet, put the small end in your mouth and your two hands over the large, or flannel, end. Now blow through the trumpet and open and shut your hands once quickly. The syllable "ma" will be sounded, and if you repeat this in a quick succession, the word "mamma" will be spoken by the

trumpet. It may have a strident sound, but it will, nevertheless, be a spoken word.

Another good imitation of the human voice may be made by taking a large empty spool and stretching across the hole at one end two rubber bands. The bands must be close together at their edges, but must not overlap. You can tack or tie the ends over the side of the spool. When you blow through the other end of the spool the bands vibrate like the human vocal chords and make a sound something like the human voice, which will change according to the force with which you blow.

Coin Inscriptions.

If any of you girls or boys are collecting old coins, the following way of reading worn inscriptions may be of use. Put a poker in the fire, and when red hot place the coin upon it, and the inscription will appear plainly for a few minutes greenich in hue, but disappearing as the coin cools. This plan originated in the mint in the beginning of the 19th century.

Out of Joint.

These proverbs appear to be familiar, but they don't read as they should. What can be the matter with them?

The mice will play 'twixt the cup and the lip.

A bird in the hand catches the first worm.

When the cat's away, look not upon the wine.

Early to bed and early to rise maketh the heart sick.

He who fights and runs away is rather to be chosen than great riches.

Hope deferred makes a man healthy, wealthy and wise.

There's many a slip when it is red.

The early bird may live to fight another day.

A good name is worth two in the bush.

How to Make a Steam Engine

An easily constructed steam engine may be made by any boy with very simple materials. An old baking powder box will do for the boiler. Fasten its lid to it with shellac varnish, and punch two holes in the side of the box, one about the size of a pinhole, the other as large as a slate pencil. The larger hole must be fitted with a wooden plug or a cork.

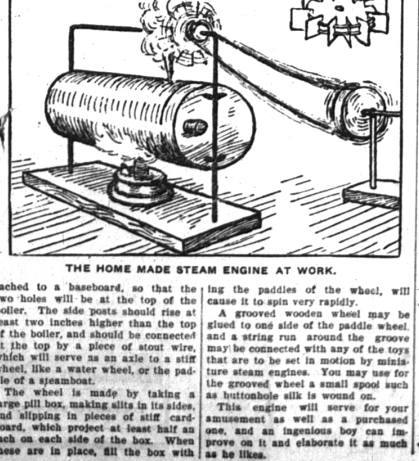
Your boiler is now complete, but it must be fastened at its two ends between two upright posts that are attached to a baseboard, so that the two holes will be at the top of the boiler. The side posts should rise at least two inches higher than the top of the boiler, and should be connected at the top by a piece of stout wire, which will serve as an axle to a stiff wheel, like a water wheel, or the paddle of a steamboat.

The wheel is made by taking a large pill box, making slits in its sides, and slipping in pieces of stiff cardboard, which project at least half an inch on each side of the box. When these are in place, fill the box with damp sand to steady the slips, and keep them put on the lid of the box and fasten it by glue so that it will not open. Arrange this wheel on the wire axle so that one side of it comes directly above the pinhole in the boiler.

Now remove the plug from the larger hole and fill the boiler with water; then close it, and light an alcohol lamp under the boiler. When the water boils the steam will issue from the pinhole in the boiler, and, striking the paddles of the wheel, will cause it to spin very rapidly.

A grooved wooden wheel may be glued to one side of the paddle wheel, and a string run around the groove may be connected with any of the toys that are to be set in motion by miniature steam engines. You may use for the grooved wheel a small spool such as buttonhole silk is wound on.

This engine will serve for your amusement as well as a purchased one, and an ingenious boy can improve on it and elaborate it as much as he likes.



THE HOME MADE STEAM ENGINE AT WORK.

Wanted, For Sale, For Rent.

Don't make any mistake, but remember the name, Swamp-Root. Dr. Kilmer's Swamp-Root, and the address, Binghamton, N. Y. on every bottle.

PRIVATE HOME FOR AGED WOMEN. Address or call at 501 Third Ave., Detroit Mich. tf

MY BABY WAS SICK

My baby is 4 months old and is teething. He was sick and I tried a good many things, but nothing seemed to relieve him.

I had a doctor, who said it was inflammation of the bowels, and that I would never pull him through—perhaps, if he was under his care. When I saw he was getting worse I stopped giving him his medicine, as he could keep nothing on his stomach. He was troubled with colic very much, and used to scream when he had a touch of it. I did not know what it was to close my eyes, day or night. I gave him a few drops of LAXAKOLA and it relieved him. I gave it to him a few times and it worked like a charm, and he now rests pretty fair all night. He is a great deal better looking baby since I gave him LAXAKOLA, and I think if all mothers knew how good it was they would use nothing else.—MRS. MARY DALEY.

Price—25 cents. 507 First St., South Boston, Mass.

For sale by Whitehead & Mitchell, druggists Birmingham, Mich

A Gallon of PURE LINSEED OIL mixed with a gallon of

Hammar Paint

makes 2 gallons of the VERY BEST PAINT in the world

Saves 25 Per Cent

of your paint bill. IS FAR MORE DURABLE than PURE WHITE LEAD and is ABSOLUTELY NOT POISONOUS. HAMMAR PAINT is made of the BEST OF PAINT MATERIALS—such as all good painters use, and is ground THICK, VERY THICK. No trouble to mix, any boy can do it. It is the COMMON SENSE OF HOUSE PAINT. NO BETTER paint can be made at ANY COST, and is

Guaranteed 5 Years

NOT TO CRACK, BLISTER, PEEL OR CHIP.

F. HAMMAR PAINT CO., St. Louis, Mo.

CAPITAL PAID IN $500.000

Estab. 1878.

SOLD AND GUARANTEED BY

Whitehead & Mitchell.

Nothing has ever equalled it. Nothing can ever surpass it.

Dr. King's New Discovery

For CONSUMPTION COLDS and OTHER LUNG COLDS. Price 50c & $1.00

A Perfect Cure: For All Throat and Lung Troubles.

Money back if it fails. Trial Bottles free.

Funny

That you leave the stable doo unlocked until the horse is stolen—but it's history and human nature. Now, why don't you be odd and

Peculiar

and lock the door NOW by renting a safe deposit box in the Exchange Bank for $1.00 per year? And if you want any deeds, mortgages, leases, wills or other legal papers made, here is the place to have it done, not only in a neat manner

But Correct

WHITE STAR LINE

DAILY EXCURSIONS DETROIT TO THE FAMOUS St. Clair Flats Tashmoo Park Port Huron and TOLEDO

On the magnificent steel steamers TASHMOO, GREYHOUND (New) and CITY OF TOLEDO

Toledo and Return, every Sunday Morning, 50c.; Flats or Tashmoo and Return, Daily, 50c.; Pt. Huron and Return, $1.00.

Steamers leave Detroit for Flats, Tashmoo, Port Huron and Way Ports Daily, 8.30 A. M. and 2.30 P. M. standard time; additional steamer for Flats and St. Clair week days at 3.30 P. M., returning arrive 8.15 A. M., 11.00 A. M. and 6.30 P. M. Steamer for Port Huron noon. Steamers to the Flats have ample time for fish supper and return on the Tashmoo at 8.30 P. M. Steamer for Toledo daily; leave week days 4.30 P. M. Sundays, 9.00 A. M. and 5.00 P. M.

Telephone 1509

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AT THIS OIFFCE JOB WORK PROMPTLY EXECUTED

Roger's Stain Floor Finish

For Foors it is the best and most durable finish ever manufactured for use on either hard or soft wood floors.

Stains and Varnishes by one application, and is the most durable Floor Finish on the market; also the best possible Finish for all kinds of Interior Woodwork, where extreme durability is required.

For all Woods.

WHITEHEAD & MITCHELL

We Claim That THE BUSHA CEREAL COFFEE

Made in Pontiac, sells the best, and is the best Cereal Coffee on the market. Our sales prove it. The people that use it say so. TRY IT.

A Big Package for 10c

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QUEEN & CRESCENT ROUTE

and

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From Cincinnati to all Important Cities South, Southwest and Southeast.

Reduced rates on the first and third Tuesdays of each month.

For information address

D. P. BROWN, T. P. A., Det. M., West, Detroit.
W. A. GARRATT, G. N.
W. C. RINEARSON, G. P. A., Cincinnati.

HAVE YOU EVER USED

CHASE & SANBORN'S HIGH GRADE COFFEES AND TEAS

If not, NOW IS THE TIME.

REGIMENTAL REUNIONS AND FORTY-SECOND ANNIVERSARY BATTLE CHICKAMAUGA.

CHATTANOOGA, SEPT. 17-21, 1905.

On September 18, 1905, will occur the forty-second anniversary of the Battle of Chickamauga. It is proposed to celebrate this memorable event with a reunion of the various regiments that participated in this memorable battle, and, in addition, to hold at the same time, a grand reunion of all the regiments that participated in the various battles fought around Chattanooga. This reunion will will be held at Chickamauga National Park, September 18, 19 and 20, and the present indications are that it will be the largest and most notable gathering ever held in the South. On the above dates, the remnants from the seventy-twelve states comprising the following: Pennsylvania, Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Nebraska, Missouri, Kansas and Kentucky, will assemble, many for the first time since they marched from its blood-stained fields, forty-two years ago.

Grand and glorious will be the meeting and all who attend will have cause to rejoice. The lowest rate ever secured has been given the entire public for this occasion, one cent per mile, short line distance.

Here is one of the great opportunities for the education of the youth. Don't fail to take your children and show them historic Chattanooga, with all its historical connections. It is the opportunity of a lifetime. Go and see the old war generals and other officers point out the places of interest on the battlefield, let them show you and explain, in person, the markers erected on the battlefield showing the positions of the opposing armies at the time of battle. It will not be long until none will be left to do this noble work; take this opportunity and don't let it escape you, it is worth six months in the school room to any student.

It will be many years, if ever again, that such an opportunity will present itself. See that your tickets read via the Louisville & Nashville R. R., the Battlefield Route. Call on your nearest railroad agent for rates and advertising matter pertaining to the reunion, or write nearest representative of the Louisville & Nashville R. R.

J. H. MILLIKEN, D. P. A., Louisville, Ky.
F. D. BUSH, D. P. A., Cincinnati, Ohio.
J. E. DAVENPORT, D. P. A., St. Louis, Mo.
H. C. BAILEY, N. W. P. A., Chicago, Ill.

(july14 tf)

TORPEDO BOAT IS CUT IN TWO

German Battle-Ship Reported to Have Rammed Vessel at Eckernfoerde.

Berlin cable: The Kiel correspondent of the Lokal Anzeiger says the battle-ship Woerth rammed torpedo-boat S 124 in the harbor of Eckernfoerde Wednesday morning, cutting her in two, and that three firemen in the boiler-room were scalded to death by escaping steam. The S 124 was one of six torpedo-boats launched in 1904. She was of 420 tons displacement and had a speed of thirty knots.

INSURANCE.

The economy and hard work of long years are sometimes just a home. Protect it by insuring in the grand old Hartford. J. A. Bigelow, Agt.

FOLEY'S KIDNEY CURE Makes Kidneys and Bladder Right

$3.00 SAVED TO ALL POINTS EAST AND WEST VIA THE D&B LINE

"Just Two Boats" DETROIT & BUFFALO

Daily Service

DETROIT & BUFFALO STEAMBOAT CO.

THE DIRECT AND POPULAR ROUTE TO POINTS EAST

DAILY SERVICE, MAY 10th

Improved Express Service (14 hours) Between

DETROIT and BUFFALO

Leave DETROIT Daily - 5.00 P. M.
Arrive BUFFALO " - 9.00 A. M.

Connecting with Morning Trains for all points NEW YORK, PENNSYLVANIA and NEW ENGLAND STATES.

Through Tickets sold to All Points, and Baggage Checked to Destination.

Leave BUFFALO Daily - 5.30 P. M.
Arrive DETROIT " - 7.30 A. M.

Connecting with Early Morning Trains for Points North and West.

Rate between Detroit and Buffalo $2.00 one way, $3.00 round trip. Berths $1.00, $1.50; Stateroom $3.50 one direction.

Send 2c Stamp for Illustrated Pamphlet.

RAIL TICKETS ACCEPTED ON STEAMERS

All Classes of Tickets sold reading via Grand Trunk, Michigan Central and Wabash Railways between Detroit and Buffalo will be accepted for transportation on D. & B. Line, in either direction between Detroit and Buffalo. A. A. SCHANTZ, G. S. P. T. M., Detroit, Mich

"The Eldredge"

For Thirty Years

The name Eldredge has stood for the BEST in the Sewing Machine World. Here is the New Eldredge, BETTER than EVER, and superior to all others. Positive take-up; self setting needle; self threading shuttle; automatic tension release; automatic bobbin winder; positive four motion feed; capped needle bar; noiseless self adjusting roller bearing wheel, steel pitman; five ply laminated woodwork, with a beautiful set of nickeled steel attachments.

Ask your dealer for the Improved Eldredge "B" and do not buy any machine until you have seen it.

National Sewing Machine Co.
BELVIDERE, ILLINOIS.

ABOUT PAINT

Detroit White Lead Works Rogers' Best Liquid Paint is the Most Durable, Most Economical, Most Satisfactory, Wears Well, Never Powders or Chalks Off and Out Lasts Any Other Kind.

BIRMINGHAM, Mich., Mar. 25, 1902.

I painted my house 20 years ago with Detroit White Lead Works Best Liquid Paint. I will repaint the house this spring for the first time in 20 years. It has lasted better all these 20 years than any paint I have seen on any other building. Even the paint is still well and don't chalk off. My folks won't have any other brand.

CLARK BLUMBURG.

Read what our own governor says;

FARMINGTON, Mich., June 5, 1901.

Detroit White Lead Works, Detroit, Mich.:

Gentlemen—I have used your Best ready Mixed Paints on my different buildings for several years. I am well pleased with them, and will use the same when I repaint.

Respectfully yours,
FRED M. WARNER.

BIRMINGHAM, Mich., Mar. 25, 1902.

I have used Detroit White Lead Works Best Ready Mixed Paints on my house in Birmingham. I am pleased with the paint in every way. It has a fine gloss and great wearing properties. I will use the same brand when I repaint. Its wonderful covering capacity makes it a matter of economy to use it.

J. L. CAMPBELL, M. D.

BIRMINGHAM, Mich., Mar. 24, 1902.

Seventeen years ago I painted my house in Birmingham with Detroit White Lead Works Best Liquid Paint. After standing 15 years I repainted it with two coats, with the exception of the front which faces the north. One coat on north side looks good enough.

L. SIMPSON.

Paint is Mitchell's hobby. Come in and talk it over with him when you are thinking about decorating your house.

CLARK'S RESTAURANT DETROIT

UP-TO-DATE. FINEST COFFEE PURE BUTTER

Nice 15c Lunch. Regular 20c Dinner.

58 West Fort Street, Between City Hall and Postoffice.

FOLEY'S HONEY AND TAR Stops the cough and heals lungs.