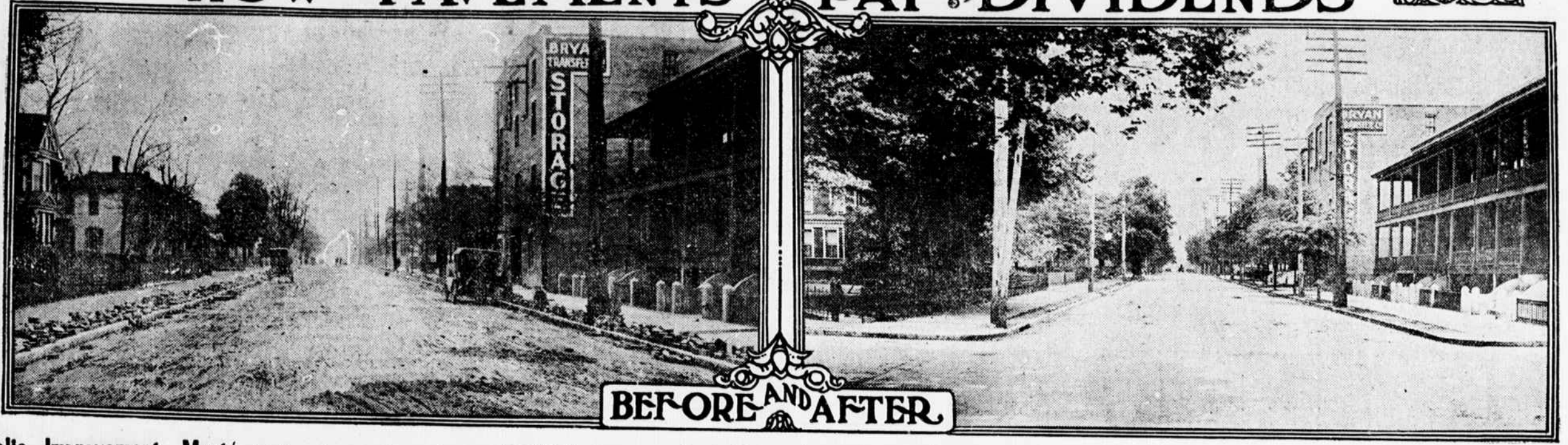


HOW PAVEMENTS PAY DIVIDENDS



BEFORE AND AFTER

Public Improvement Most Effective In Increasing City's Healthfulness and Beauty--Also Pays Best Cash Profits.

depth of the blocks and make them of somewhat smaller size otherwise, thus rendering it possible to get a better cut block at the same expense as before and allowing the blocks to be laid with a closer joint, thus reducing abnormal wear.

Wood Block Pavements.
Wood pavements have been laid at intervals in this country for some seventy years. The first pavements were not only of untreated wood, but of wood selected without much regard for its natural durability.

The first treated wood pavement in this country was laid in Tremont street, Boston, in 1900. This pavement has been in use during this entire period, with very small repairs, and is in good condition at the present time.

The present method of laying wood pavements in this country has not been in use long enough to determine what the cost of maintenance is, but figures obtained from St. Louis, Minneapolis and other cities indicate that it is exceedingly small. It has been given a value as shown in the table below.

Brick Pavements.

The first brick pavements in this country were laid in Wheeling, W. Va., in 1870, but the material did not come into general use for some time. Many failures have occurred in brick pavements because people did not understand the difference between bricks, and it was not easy in the early days of the industry to determine previous to its use whether a certain brick would or would not make a good pavement.

Asphalt Pavements.

The first sheet asphalt pavement of any note was laid on Pennsylvania Avenue, Washington, in 1876. So great was its success that it soon came into general use all over the country. While called asphalt pavement, it is almost entirely composed of sand, as the standard pavements have but 10 to 12 per cent of bitumen, which is the valuable property of the asphalt, the rest being made up of sand and a small portion of stone dust.

The pavement is pleasing in appearance, smooth, not noisy and on light traffic streets seems to be almost ideal. It is more slippery than the hard block pavements, and in the coast cities it is not generally laid on grades over 3 or 4 per cent. In the interior, however, where the atmosphere contains less moisture, it is often used on grades as high as 7 per cent without trouble.

Data collected from the cities of Brooklyn, Boston, Buffalo, Chicago, New York, Philadelphia, St. Louis and Washington show that these cities in 1890 had a total of 246 miles of asphalt pavement and in 1911 2,348 miles. This gives an idea of the popularity of the pavement, although it must be taken into consideration that this was during a period when there was great activity in laying new and smooth pavements. In Brooklyn, in 1895, there were eighteen miles of asphalt pavement, while at the present time there are 540 miles. Brooklyn is a residential city, without many steep grades, and one to which this material is particularly adapted.

Relative Costs.

The following table shows the cost of different kinds of pavement for a period of years, assuming that granite has a life of twenty-five years, wood twenty years, brick fifteen years and asphalt eighteen years. This life, as has been intimated before, is probably too small for Ohio brick pavements or those in small cities:

Material	First cost, per square yard	Expense per year, first period, fifty years	Average expense per year, per year
Granite	\$3.50	\$0.294	\$0.270
Asphalt	2.50	0.258	0.164
Wood	3.50	0.208	0.274
Brick	2.50	0.224	0.199

Another advantage of smooth streets is that they count heavily in favor of healthfulness. Half the advantage of a sewerage system is lost unless there are smooth pavements properly drained into the sewers. The right kind of pavements can be laid so that there is literally no place for refuse and dirt; rain washes them clean or they can be flushed. The dust and dirt of a roadway are not only injurious to health, but they are a nuisance, especially annoying on motor traveled highways.

Advertising Value of Good Streets.
Still another factor well worth taking into account is the advertising value of well paved streets. No other improvement makes so immediate an impression. The men who have been most successful in suburban real estate development say that there is nothing like a good pavement and sidewalks to make lots sell. These are the things that people notice first.

Last spring a New York town lost the biggest industry it ever had a chance to get because the men who went there to look into the prospects for locating a plant found the streets a sea of mud and were so prejudiced by this condition that they went elsewhere for their plant site.

These men were not going to live in the town. They were not going to haul over the town streets. But they were looking for a live, progressive town, and the advantages that the abandoned location really possessed were all ignored because of the unfavorable impression made by unpaved streets. Not reasonable, you say. Perhaps not, but these are the facts. Clothes don't make the man, either, but it is hard for a shabby looking man to get a good job. It is just as hard for a city to attract business un-

less it looks prosperous and up to date. Pavements do more to produce this effect than any other improvement.

Here is what John MacVicar, ex-mayor of Des Moines, Ia., says on this subject in general, re-enforcing his opinion with an illuminating instance as to the effect of a good pavement on business:

Business Follows Paving.

"Observing business men, particularly the retail merchant and the realty agent, have learned that business follows good pavements. This fact is particularly noticeable since the advent of motorcars and the important passenger traffic this means of transportation has developed.

"The truth of the above was forcibly brought to the attention of the property owners and leaseholders on Walnut street, Des Moines' most important business street, a little more than a year ago. The pavement on this street, because of poor railway track construction and other causes, became somewhat defective, and it was plainly seen that vehicle traffic avoided Walnut street, giving preference to its most formidable rival, Locust street, which had a better pavement. A petition for the immediate paving of Walnut street (at the expense of property abutting) with asphalt was promptly signed by every local property owner. Following the repaving of the street, it was noticed there was a prompt return of the traffic which naturally belonged to it.

"Since this improvement was secured for Walnut street the property owners on Locust street have induced the city council to extend a modern pavement to the extreme west end of the street and to remove an antiquated and rough, though by no means worn-

out, pavement, hoping thereby to regain some of the lost ground."

Start Right.

It was said above that communities that once started to pave their streets properly never went backward. This is strictly true, but note that word PROPERLY. Where apparent exceptions to this rule are found it is also discovered that what the backsliding town tired of was not good paving, but bad paving. Towns sometimes get swindled or they try to save money on their streets and find that there was no saving, but that, on the contrary, their money has been thrown away on imitation asphalt or poor construction or some patent paving fad of which nearly every year sees a new example. The cities that have the best pavements have been laying the same kind with the same materials for more than a generation. They know, and when their example is followed there is no risk taken and no chance that any community will regret its investment and go back into the mud and dust.

Property owners, those who use and pay for pavements, ought to know something about them and, possessing that knowledge, to have something to say about what their pavements shall be. Intelligent public opinion on public improvements is the greatest assurance the community can have of good work. Of course we must have expert advice and assistance. But we must think for ourselves, too, and be able to tell experts and engineers what we want them to do for us.

The places where money has been wasted on paving are those places where the people were too indifferent to demand what was best for them and where, in consequence, somebody "put one over." Rutted brick, cracked concrete, bulging wood block and raveling imitation asphalt are the poorest sorts of investment. Really good pavements are the best kind of investment, but not to be obtained except by eternal and intelligent vigilance.

Washington's Experience.

Washington, D. C., is one of the best paved cities in the world, as it should be as the capital of the United States. Captain Mark Brook, engineer commissioner of the District of Columbia, recently told the members of the Engineers' club of Baltimore how Washington had achieved its results. "Washington is a city of asphalt pavements," he said. "It has in round numbers 4,800,000 square yards of street pavements, of which 3,344,000 yards—150 miles—are sheet asphalt. It is safe to

assert that, cost and everything else considered, bituminous pavements of the sheet asphalt or asphaltic macadam type are as near the ideal form of pavement as any we have, and I also think that among the eastern cities the amount of such pavement may be taken as an indication of the condition of their streets.

"Washington pavements will bear comparison with any I have seen, both in cost and quality. Such measure of success as we have attained has been principally due to the fact that our paving problems have always been engineering questions and not political issues; that we have very largely confined our efforts and expenditures to the improvement of a single type well adapted to local conditions."

Others have paid for experience in paving. The advantages are too well known to require further proof. We, in common with other progressive communities, want good pavements. The question is not, Can we afford them? It is, Can we afford to do without them?

This newspaper intends to keep this subject to the fore until it can be said that this community, at the least, is among the best paved towns in the state.

Those who may now be indifferent or even opposed to this improvement will soon be converted.

Those who are already with us can help by circulating the gospel of good pavements on all occasions.

Watch for the special articles on paving that will appear from week to week in these columns.

The transformation wrought in a number of cities in Indiana by good streets has made reputations for them which are the envy of other communities.

Good streets in Evansville, Mishawaka, New Castle, Wabash, Fort Wayne, Lafayette, Garrett, Auburn, South Bend, Michigan City, Peru and Logansport, where asphalt predominates,

In all the central west there is no progressive town or city the ambitious people of which do not feel a pride in their public thoroughfares, and this is partly because the measure of progress is so often taken from the character of streets. Permanent paving, a few years ago thought to be practicable only in the larger cities, is now demanded wherever there is a people desirous of keeping up with the times.

PUTTING PAVING ON SYSTEMATIC BASIS

New Louisiana Law a Model For Other Communities.

New Orleans has just begun work under a new paving law which represents improvement and progress toward the systematizing of city paving work. The essential features of the law are that prior to the 1st of September the city must make its plans for all the street paving that is to be done during the succeeding calendar year. After the bids are opened they are published for a month, and the property owners are given an opportunity to petition for the type of pavement that they desire. Thereafter certificates are sold against the assessments for the work, and the proceeds of the sale of the certificates are used to pay the contractors.

The assessment proceedings are to be finished before the beginning of the work, thus financing the property owners' portion and doing away with the troublesome tax lien. The bonds sold in anticipation of the collection of the property owners' share of cost rest not only for their security on the fund created by the assessment, but are made by law an obligation of the city and given a specific lien against the city's reserve funds. They may be sold as low as 95, thus facilitating their prompt disposal at times when the bond market is below normal. This amounts to making up in advance a plan for the amount of paving to be done and types of pavements, as well as the financing of a year's work.

It is provided that bids are to be taken on a great many types of pavements, for which detailed specifications are legalized. These specifications include sheet asphalt, asphaltic concrete, cement concrete, rock asphalt, mineral rubber and wood block.

have won a recognition impossible to be attained by adherence to old methods.

What has been accomplished in those cities can be accomplished here. The Indiana cities are cited merely as examples. Hundreds of other cities in other states afford proof that where there is a will for good pavements there is a way to get them.

Never Too Late or Too Early.

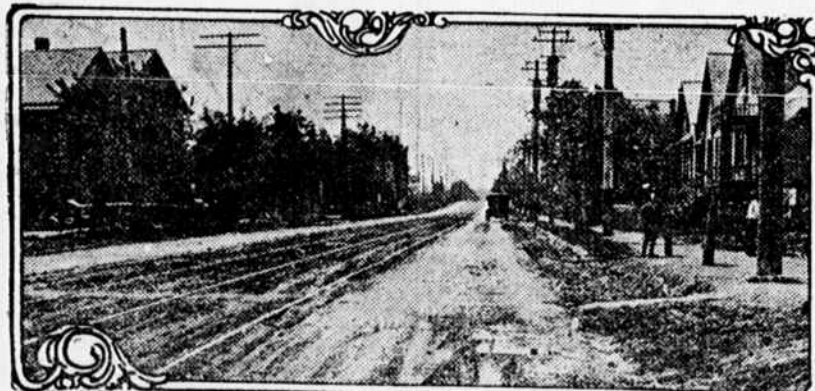
It is never too late or too early in a city's life to begin paving. Since this series of articles was begun a correspondent has called our attention to the fact that Urbana, O., was 100 years old before it began paving its streets in the spring of 1914. The Urbana banker who sends this information says that the improvement has brought several new mercantile establishments to the city and that next year it will lay from 40,000 to 50,000 yards of additional asphalt paving.

From the mayor of another Ohio town—but a much smaller one, Wauseon, with a population of only 2,700—comes the information that the paving of nine streets with bituminous macadam last year has increased the value of property by 40 per cent and led to the determination to do more paving in 1915. "The people here did not know what a pretty town this could be until they got good streets. Now they would not give them up for twice their cost."

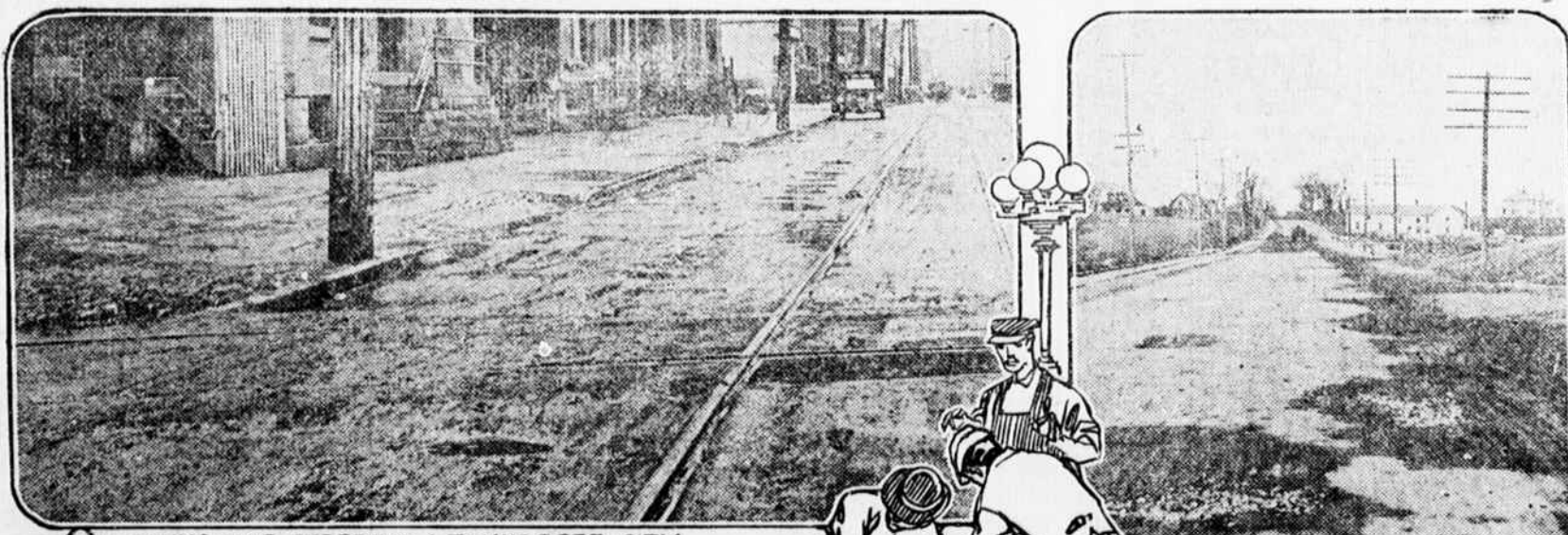
That is the way it goes. If every one could see what pavements would do for his street there would be no question about going ahead with the work. Look at the photographs of beautifully paved streets on this page. If you are now living on an unpaved or poorly paved roadway picture how much more attractive your street would be with a smooth, clean surface. To promote health, beauty and progress let us all get together for good pavements in 1915.

More Evidence Forthcoming.

More evidence if needed will be forthcoming to prove to those in doubt that nothing will bog this community



A STREET LIKE THIS IS A DISGRACE



PAVING THIS STREET IN A TENNESSEE CITY INCREASED PROPERTY VALUES IMMENSELY.



THIS PAVEMENT IN A SOUTH CAROLINA TOWN NEARLY DOUBLED PROPERTY VALUES.



STREETS LIKE THIS ARE A DISGRACE TO ANY COMMUNITY.

THE KIND OF PAVEMENTS TO BE PROUD OF