

HIGHWAY BUILDING.

IMPROVING EARTH ROADS WITH CLAY AND SAND.

How to Mix and Apply Them to Secure the Best Results—The Use of Road Machines in Building These Highways.

In an interesting address delivered at the Greenville (Mich.) good roads convention Frank F. Rogers, C. E., had the following to say regarding the improvement of earth roads:

If you must always have an earth road and cannot get gravel or stone at a reasonable cost, put clay on the sand and sand on the clay. When these become suitably mixed, they will form a sort of hardpan, making a very good road surface at most seasons of the year. Of course, the clay is good when hard and dry and the sand quite pumple when the weather is so wet that nobody wants to travel, but to secure a medium earth road, good the great-out number of days in the year, that it is possible to make it, this is the best method that we can prescribe.

It should be borne in mind that neither improvement is very good until suitably mixed, and clay should be applied in sand in a manner to secure that mixture as speedily as possible and vice versa.

Decide on the width of a given road between ditches—say twenty to twenty-four feet, not much narrower and not much wider. These are economical widths, and the lack of uniformity in this particular is one of the greatest evils of our lack of system in road building all over this country. Bring the road to a suitable crown from twelve to eighteen inches above the side gutters. This, however, will have to be varied to meet the special needs of drainage for the locality, and should a large ditch be required on a narrow road it should be entirely outside the regular gutter, which will protect the vehicles from the danger of tipping over.

To prepare the bed it may have to be plowed toward the center, but, if so, do not disturb the old roadbed unless absolutely necessary. After plowing, harrow thoroughly, take a road machine and shape the whole bed to a perfectly rounded shape and roll till no more compacting is possible with a roller weighing four tons or more. A farm roller is of little use for this purpose.

After the bed is properly shaped and rolled as described take a road machine and crowd enough earth to each side of a central strip of such width as it may be desirable to cover with clay or gravel. This being done, clay should be applied on sand to the depth of five or six inches where no gravel is used and to the depth of three or four inches where a dressing of as much gravel can be placed upon the clay. After the clay is applied, it may be leveled with a road machine if well pulverized, or, if lumpy, it may be leveled by first rolling to crush the lumps, then harrowing till smooth, but in each case it must be rolled till hard after a smooth surface has been secured.

Where no gravel is used the clay must be covered with from one to two inches of sand by reversing the road machine and crowding a little of the surplus sand from the sides to the center. This will prevent the roads from becoming muddy at the first wet spell. If a top dressing of gravel is used, it should be applied to the thin coat of clay immediately after rolling, then be brought to a true surface by the use of a road machine and rolled till it is thoroughly compacted. If the weather is dry, the gravel should be kept sprinkled during the final rolling.

When sand is used on clay, we usually secure as good results as by putting clay in sand, for it does not always prevent mud when the ground is extremely soft. A clay road should always be well piled with good side ditches, which must quickly take the water to its nearest natural outlet, which, in turn, must always be so well kept as to take the water at once away from the road allowance. Sand should be applied to clay after the picking is done, without forming any depression for its reception, as has been recommended for gravel. Sand should never be applied at a season of the year when a long dry spell is expected, but rather immediately before wet fall weather and winter sets in, so that by the next season it may become sufficiently mixed with clay to produce the condition already referred to. The same practice should be employed when any considerable depth of loose gravel is applied to a clay soil with the expectation that travel will make it hard.

The application of sand and gravel to clay, as above described, can be done in layers, giving time for the first layer to pack before the second is applied. It is often advisable to wait till the next fall before the second layer is applied, thus giving time to watch results and see just the depth required to secure the best effect, as well as to economize material. After all this is done, we have not secured a permanent road suited to heavy traffic, and we shall be obliged to look to the better grades of gravel and broken stone to produce any road that may really be called permanent.

The Care of Earth Roads. Earth roads should be repaired, particularly in the spring and fall of the year, but the mistake of letting them take care of themselves during the balance of the year should not be made. The greatest need of the common road in this country is daily or weekly care. A road receiving daily attention will require no extensive repairs and instead of becoming worse will gradually improve. It is mischievous and frequent homeopathic treatment that the earth road needs.

ROLLING A HIGHWAY.

Some Points About Road Rollers and Their Use.

Every road is made smoother and harder by rolling, and dirt roads are no exception to this rule, says Isaac B. Potter. We have all noticed that the hardest and smoothest parts of a country road are the narrow strips which mark the passage of the wagon wheels that have gone over it, and these parts have become hard and smooth because the wheels have acted as rollers. But a wagon wheel is not always a very satisfactory roller, for the reason that the wheels are too narrow, and when the road is wet and soft the narrow wheels sink into the surface and form ruts and cut and mix and mangle the dirt out of all reason and destroy the good qualities of the roadway. If all the wagons used on country roads could be provided with three four inches wide, they would roll the surface more smoothly and more quickly, and it would be in fairly good condition for nearly the whole year round.

A good horse roller will serve much to cure this difficulty, and such a roller



ROLLING WITH WIDE TIRES.

can be bought for from \$50 to \$100 per ton. A roller weighing about five tons is about the proper thing. Steam rollers are becoming more generally used from year to year in our cities and towns, and there are many places where they can be used to advantage in consolidating the earth roads of the suburbs. They are generally more effective in their work and if kept busy are vastly cheaper to operate. They weigh from seven or eight tons upward, the ten and twelve ton sizes being perhaps the most popular.

Rolling should follow closely upon the work of the road grader or scraper so as to consolidate all the loose earth and the action of the scraper has laid in the line of the roadway. The roller should pass many times over the softer portions of the road, and where the road is very dry and not inclined to pack it may be slightly moistened to hasten the action of the roller. The rolling should begin at the sides of the road and gradually toward the center—that is, the roller should be moved from end to end along the side of the road, and then the second pass of the roller should slightly lap the first until the center of the road is reached.

FAVOR OILED ROADS.

The Use of Petroleum on Highways to Lay the Dust.

The use of oil on highways is steadily increasing in favor. In Moline, Ill., oil has been tried in place of water as a remedy for dust, and the results have been satisfactory. Bourton, Ind., is considering the idea of sprinkling the streets with oil. The dust problem there is a very serious one during the summer months, for there are no gravel beds from which to construct roads. The towns of California, which have been doing more in this line than those of any other state, are testifying to the great benefits derived from oil on the highways, by the continued use they are making of this means of laying the dust, says the New York Tribune. The board of supervisors of Sacramento are greatly in favor of oiled roads. Three hundred or 350 barrels of oil a mile are at times necessary for the permanent packing of a sand road, but in many cases only 150 barrels need be used.

The roads of California are in most cases of sand, and the great benefits derived from the consolidating of this sand with the oil is continually testified to by those in charge of the highways. Not only is the oil a better dust layer and a more permanent one, but it is also more economical than water, inasmuch as the roads need to be oiled but once or twice a year, while sprinkling with water must be done every little while.

Using Straw to Improve Roads.

The farmers of Walla Walla county, Wash., are trying the experiment of laying their roads with straw to improve them, says the New York Tribune. Every fall the highways become deep with dust, making traveling hard on man and beast. Heavy rains wash mud, and the dust could not be removed without destroying the road. It then occurred to an enterprising individual that if all of the farmers would contribute straw and all hands united in laying it on the roads, much travel there would be a great change for the better. The experiment was a decided success. The farmers turned out in force, plenty of straw was offered, ready hands laid it to the depth of a foot or more on the main thoroughfares of the county, and traveling became easy. Three hundred miles of roads will be covered with straw this fall.

Good Roads in Michigan.

Last year several counties in the state of Michigan expended over \$600,000 on road improvements, and this year more than that amount will be expended.

OLD FASHIONS THAT LIVE.

How Elizabethan and Mediaeval Modes Appear in Today's Modes.

Rejuvenated fashions of long ago are much in favor. The high Elizabethan and mediaeval ruffs are handsome and stately arrangements and are calculated to set off the beauty of women. They are seen today in the round and high collars called mediaeval and storm collars. If the ruff is on an outdoor garment, it is called a storm collar because it can be brought up against the face, protecting the neck and ears. If it is arranged for indoors, it is of lace or some delicate or else superbly rich material, but whichever way it is employed the collar makes a frame for the face, which women know is a great beauty, and therefore they are loath to allow anything to take its place. As a dark and rich background gives a new value to a portrait, so does the mediaeval frame, as it was called in the olden time, add to the delicacy of a face.

In an old book of costumes beginning with the first invention in the way of



Queen Margot. An old and modern ruff. Queen Elizabeth. Mediaeval frame. Marie Stuart.

OLD FASHIONS THAT ARE USED TODAY.

dress I find the pictures herewith, and think them of sufficient interest to women to present them here. One picture shows Queen Elizabeth, and her sleeves are of peachblow satin, puffed and quilted with black velvet, ribbons, which were as much liked in those days as now. Shoulder puffs noted, height and dignity, and these were crossed with satin straps which were held together with pearls. The wrists were finished with upturned cuffs of fine lace, and lace also edged the ruff, which stood high and wide in the back. Another picture shows the mediaeval frame, the ends of which are square, while the Elizabethan comes to a point at the neck. A full of fine lace finishes it. Another collar shown is still smaller and is matched in material by a pretty and becoming Marie Stuart collar. There are several of these arrangements now made and being made for some of the smart set in New York, and they are to be worn at grand opera and many grand day functions. The woman of today seeks from every age and nation things for her own embellishment, and it seems that nothing comes amiss provided it has not become common. The Marie Stuart point over the brows has always been liked and is now about to have a real vogue in regular cuffs. An other shape of a collar is shown, and this is made of rich blue velvet with strings of pearls around the edges and crossed on the soft, high crown. A small signet of white marble is placed at the left side. This picture represents the Queen Margot, and it is here also that the bon of today had its origin.

Bons of lace, tulle, chiffon and liberty, to say nothing of feathers, are exceedingly fashionable, and probably they will be so all winter, for there is much more warmth in them than the lay mind would believe.

After this come the fur boas, which differ materially from those of last year. They are longer and fuller and larger around. It would never do to allow the fashion to remain exactly the same, for where would the fur dealer find his account if they did? There are foppets, and they look just like those that are found in the same old book as dating from the sixteenth century. There are muffs of every kind from the plain dyed possum to silk and velvet with ribbon and fur trimmings.

The storm collars and collarettes are distinctly those of the old days, but copied in fur. The mediaeval and Elizabethan shapes are as distinct now as then, which goes to prove that women are not so very fickle, after all, when they stick to one fashion for over four centuries.

These fur storm collars and collarettes are certainly pretty and convenient. They have some new grace this season, though it is difficult to define it, but perhaps it lies in the clever way in which different furs have been combined. The body of the collarette will be of some color fur, like lamb, astrakhan or seal, and the border will be of silk, marten, Hudson bay seal, Alaska sable or some other soft and deep fur.

Some of them have scal for the center and miniver or chinchilla for the facing of the collar and revers. In one or two cases I saw fine black broadcloth for the outside of the collar, with the finishing of rich skunk or Alaska sable. HENRIETTE ROUSSEAU.

A Supplemented Case.

A country "quire" is often called upon to settle questions which tax both his knowledge and his integrity. One such matter was presented to Squire Prescott of Banbury.

"Square," said a solemn faced man, stopping the lawyer one day as he was leaving the postoffice, "there's a post I want you should settle, and whatever you say I'll abide by it, whether you think as I expect you will or not."

"Well, let's hear what it is," said Squire Prescott good naturedly. "It's just like this," said the man, stopping close and speaking in a low tone. "Tom Rogers wants to trade farms with me, but we can't quite agree on terms. His cow pasture is better than mine, but I've got twice as many blackberry bushes as he has; his corn is all started, and mine isn't, but I've got screens to five windows and two doors; there's less stones in his meadow land than there is in mine, but there's more bog."

"Now, I won't tell you which is which, but one of us thinks Tom's collie dog had ought to be thrown into the harbor, and the other one thinks that my heifer would just about even up. Now, what should you say was the fair thing?"—Youth's Companion.

When Tisnot Was Satisfied.

An interesting story is told of Jacques Tisnot, the great French painter. While in England he painted a beautiful religious picture and, meeting a countrywoman, asked her opinion of his work. "It's a chief d'œuvre," she replied, giving a remarkably just and detailed appreciation of the various merits of the painting.

"Are you satisfied?" asked a friend. Tisnot answered in the negative. He entirely repainted his picture, working night and day.

When finished, he sent again for his fair critic, who pronounced it admirable and remained silently admiring it with smiling criticism.

"Are you satisfied?" asked the friend again when the lady had departed. "No," replied the artist, and he set to work for the third time.

When the Parisienne saw the new painting, she gazed at it for some moments with evident emotion and then without a word sank softly to her knees and began to pray.

"Are you satisfied now?" whispered the friend, and Tisnot said "Yes."

The First Skaters.

It is very doubtful which race first skated, for traces have been found among prehistoric remains all over northern Europe indicating that the art was practiced by primitive peoples. The Eskimo of the farthest north are also found to be in possession of runners carved from whalebone. Skating is mentioned by a Danish historian about 1134, and Fitzstephen in his "History of London" says that in the twelfth century young men fastened the legs of animals under their feet by means of thongs in order to slide along the ice. This statement is confirmed by the pair of bone skates of the period now in the British museum. It is likely, however, that these early Londoners got the idea from Holland, probably via Lincolnshire, where skates have been used on the frozen fens from very remote times.

Paul the Tyrant.

Paul I. of Russia was very deaf and also very tyrannical. One day an aide-de-camp, intending to please him, approached and cried in his ear, "I am glad to see, your majesty, that your hearing is much improved."

"What is that you say?" growled the czar.

Raising his voice, the aide-de-camp said, "I am glad that your majesty's hearing is so much improved."

"Ah, that's it, eh?" chuckled the czar, and then added, "Say it once more."

The aide-de-camp repeated the words, whereupon Paul I. thundered, "So you dare to make fun of me, do you? Just wait awhile."

Next day the aide-de-camp was on his way to the mines of Siberia.

Phonetic Spelling.

The teacher of a country school was "hearing" her spelling class recite. She had just "sawed out" the word "anxious," which, according to her instruction, had been spelled in this fashion: "Big A, little a, e-o-n."

The next word was "gallery." The pupil said:

"G-a-l, gal-g-a-l, gal, two or three times and hal-fer. Then, after three thoughts, he added:

"Big gal, little gal, e-y, gallery."—New York Times.

Familes.

"As for families, every one you pick shall have a different character. Some are perverse, like basinal babies, and will not look you in the face. Some are confiding, and some are even bold. Go and study them if you are an unbeliever, and you shall find that many things that we call human traits belong in almost equal proportions to plants and animals."

Expensive Bridegroom.

Father (examining his son's expense account at college): Young man, what do you mean by charging up half a dozen bottles of whisky to wearing apparel during last term?

Son—Oh, that's all right; I used that stuff for nightcaps.—Town and Country.

Her Fear.

The Belle—I'm not feeling at all well this evening.

The Belle—I hope it's not a lingering illness.—Kansas City Independent.

Tons of Food For the Atlantic.

Commenting on the tremendous amount of food consumed on the average Atlantic liner, says a writer in the Springfield Republican: "At 8 o'clock the monumental breakfast; at 11 the deck steward fills up the commode figures in the morgue with their beef tea from those thick, obese English cups; at 1 the magnificent luncheon; at 5 the sleepers are lit by the deck steward again; at 7 the awesome English dinner; at 9:30 a 100 lb lunch to ballast you for bed. Besides this baricade of sandwiches, olives, cheese, crackers, perpetually stare you in the face in the smoking room: Food, food, food; the sight and smell of it causes the unwilling stomach in every corner of the place; food tossed, wasted, thrown away. There is one port hole on the storage deck, from the galley apparently, which belches it forth in a continuous stream—half loaves of bread, great remnants of meat; we have left a trail of it across the Atlantic. If some one would only estimate the tons of wasted food which are annually thrown into the Atlantic or could calculate how much cheaper these steamship companies could give us our travel if they substituted plain, self-respecting fare for this gilded glutony, it would certainly be interesting and worth while."

The Gallifrey and its Invention. One of the most widely disseminated of popular errors is that Dr. Gallifrey invented the grim machine which still bears the name. The real inventor of this sinister contrivance was Dr. Louis, a well known medical man and permanent secretary of the Parisian School of Medicine, or Academie de Medicine.

Dr. Gallifrey, who died in 1814, energetically but vainly protested against the use of his name in connection with this disagreeable subject—an evidence, if one were wanted, of the great difficulty there is of correcting a popular error. Needless to say that the legend that Dr. Gallifrey was among the victims of his friends' legends and merciful instrument of destruction is wholly apocryphal. He died at a good old age and in his bed, surrounded by his children, who, however, obtained permission to change their name.

Outward Show in Italy.

All over Italy social life is characterized by a great love of outward show. Here is an anecdote which Mr. Luigi Villari relates in "Italian Life in Town and Country" to illustrate this national feeling:

An American gentleman who was spending the winter in Naples had taken a flat in a palazzo, the first floor of which was occupied by a noble family in somewhat reduced circumstances. He noticed to his surprise that every day he met a servant going up or down the stairs carrying a pair of carriage doors. At last the mystery was explained. The said noble family shared a carriage with some other people, but each had its own doors with the family coat of arms, to make their friends believe that they both had carriages.

Mosque Village Criers.

Among the picturesque features of life in the Mosqui villages are the town criers, who take the place of the daily newspapers in civilized communities.

There are two of these functionaries, one representing the "hostiles" and the other the "friendly," the opposing political parties in the Tusayan villages. Twice a day these officials ascend to the housetops and, wrapped in their scarlet blankets, their figures outlined against the clear blue sky, call out in long drawn, resonant tones whatever announcement or record of town happenings may be in order.

The Woe of Capt.

"Men is sho' sickle," said Miss Miami Brown. "They goes back on you on do slightest provocation."

"What's been happenin'?" asked Miss Olima Jefferson Tompkins.

"Mr. Rastus Pinkley come aroun' tryin' to kiss me, an', so as not to seem too willin' an' subservient, I smashed 'im wif a fiftion, an' jes' foh dat he jilted me."—Washington Star.

Teaching His a Lesson.

Thompson—Did your wife scold you when you went home so late last night?

Johnson—You don't know what it is to have a wife who was once a school-teacher. She simply made me write a hundred times on a slate, "I must be home by 10 o'clock."

A Mean Rival.

Miss Esthete—Oh, I just adore poets! What a soul, soulful expression Mr. Loughlan has.

Mr. Smartarton—You would have a soul, soulful expression, too, if you were as far behind in your board bill as he is.—New York Weekly.

Toothache.

Dentist—Been suffering from toothache, I see.

Slee—Yes; haven't slept a wink for three nights.

Dentist—Is it a back one or—

Slee—No; it's my husband's tooth.

Not a Bargain Day.

The Husband (during the quarrel)—You're always making bargains. Was there ever a time when you didn't?

The Wife—Yes, sir, on my wedding day.

Plenty of Food.

Alice—What makes you think your new photographs are so horrid?

Glady—All my girl friends ask for one, but my male friends don't.

Nothing is more distressing than young men trying to act old or old men trying to act young.—Chicago News.

ATTRACTIVE STREETS.

Highways Should Be Wide and Homely Stand Well Built.

A narrow residential street may be a very attractive one if the houses stand well back from the street line, with pleasant grounds about them, says Sylvester Baxter in the September Century. In a growing town, however, the danger from such conspicuous corners with the facility to convert the street to business purposes or to erect more compactly disposed dwellings. If business comes in, the transition is easily made, and the street is then a cheery and undesirable aspect, are built out to the street, while the dwellings stand recessed back at irregular intervals. And when at last the street is fully equipped for business purposes it is altogether too narrow. The roadway and sidewalks are cramped, and often a scowling has to take place at the public expense. If built up closely to the blue with dwellings, the trees are likely to lack air and sunshine, and the tendency is toward squallid conditions.

An excellent remedy for these evils is offered in the Massachusetts law that empowered municipalities to establish building lines at any desired distance back from the street line. When such a line is established, no buildings can be erected on the intervening space. The municipality acquires an easement in this strip of land, which can still be used by the owner for anything but building purposes, and on the establishment of such a line owners may claim damages, as in case of takings for a street widening. It is, however, commonly more of a benefit than a damage to have property thus restricted, for it ensures a more permanently desirable character to the street, and in case a street widening should ever be called for no obstacles will stand in the way of taking the restricted strips there will be a ample room for the wider road way and sidewalks.

Ideals for attractive street planning, are to be found in many parts of the United States. There is nothing more charming as a rural street than that of a New England village at its best: long, straight, the houses with feet in a carpet of turf at the sidewalk border; the houses light and unobtrusive, standing well back and marked with the true home character whether they are humble cottages or mansions of the rich. The most developed of such rural streets is to be found in the old towns of the Connecticut valley and in western Massachusetts. There the main highway, have an extraordinarily generous width, often giving room for quadruple rows of old elms and broad spaces of turf, the roads requiring only a narrow space in the total width of the thoroughfare.

CLEAN TOWNS.

They Attract Homeowners and Grow Very Rapidly.

It doesn't cost much and is very little trouble to keep a town clean if the citizens will co-operate and do their share in the matter. And there is a better advertisement for a town. I once asked my wife to go to a clean town just as one will go to a clean street to buy his goods.

Of course the schools should be kept clean as an example to the young, and to prevent the loitering and propagation of disease of any kind the streets and alleys ought to receive more careful attention. The latter especially are too often made the receptacles of all kinds of filth that in summer spread infection broadcast. In cold weather the nuisance is almost as dangerous.

There must of necessity be a deal of mud and slush this winter on all our sidewalks, but if each household will exercise a little care in keeping the walk in front of his house properly cleaned the exceedingly unpleasant effects of it may be to a large extent overcome. If attention is given this matter, a necessary walk about town will be a pleasure instead of a regret, and sociability would be promoted. Nothing gives more agreeable first impressions of a city or town than the cleanliness of its streets, stores and public places, and it may draw to us many inhabitants and large investments.

Protection of Street Trees.

If a tree has been well scraped of the cocoons that contain the eggs, it may be protected from the caterpillars that are allowed to develop on neighboring trees by a band of tar or other viscous substance painted around the trunk and renewed from time to time so that it will not get dry. There is no perfect protection, however, since caterpillars suspend themselves by silk filers of their own spinning and are wafted when thus suspended from an infected to a noninfected tree. An occasional spraying of the tree's leaves with a solution of Paris green or London purple will poison the caterpillars without hurting the trees. All these precautions, if persevered in, would soon end the caterpillar pest.

Climatic Improve Village.

There is one woman's club in the country which does all its work in the summer—the Woman's Improvement Association of Point of Woods, N. Y. It is made up of women from the summer cottage colony, many of them New York clubwomen. The society was organized four years ago for village improvement. Last summer it erected a memorial costing \$700 to Margaret Fuller, whose death by shipwreck occurred off this point. This summer the society has built a fine pavilion on the shore, it installing semi-weekly dances for the benefit of the young people and has in view a tennis court as the next object of its effort. It keeps a vigilant eye on the order, cleanliness and sanitation of the place.

THE ENTERPRISE.

RATES OF ADVERTISING:

One Square, one insertion	75 Cents.
" " two insertions	\$1.25.
" " one month	\$2.00.
" " three months	\$4.00.
" " six "	\$7.00.
" " twelve "	\$12.00.

For larger advertisements Liberal Contracts will be made.

Professional Cards.

JOHN D. HIGGS,

DENTIST.

OFFICE: MAIN STREET.

GEO W NEWELL,

ATTORNEY AT LAW.

Office on Main St. in New Bank Bldg. Left hand side, top of steps.

WILLIAMSON N. C.

Our Practices whenever services are desired, special attention will be given to the needs of our clients and purchasers of timber and land.

Malby House,

C. A. FOWLER, Manager.

AMERICAN AND

EUROPEAN PLAN.

18 to 25 Prat Street,

BALTIMORE, MD.

Thoroughly Renovated and

put in First-Class Order.

Business Established in

Rocky Mount, N. C.

GEO. R. DIXON,

Practical Sheet Metal Worker.

Tin Roofing, Guttering and Tobacco

Flues a Specialty, also Tin Roofs Painted

I will positively be on hand

AT WILLIAMSTON

to furnish the Farmers with

TOBACCO FLUES