

The Log Drag as a Good Roads Maker.

Considerable space in this issue of the WATCHMAN is devoted to a timely subpiet-that of improving our public roads. The advantages from a financial point, of having good roads in evcry community, need no argument, while the pleasure and comfort derived in trav-el are more than a sufficient recompense. el are more than a sufficient recompense Everybody really is in tavor of good roads, but how to secure them without burdening property owners with exces-sive road taxes is the problem.

In Centre county we have two kinds of roads, those with a stone foundation, and the ordinary clay road made entire-ly of earth. We have a fairly good proportion of stone roads, yet in every township there is a large extent of clay road especially leading from the main thoroughfares. The larger portion of the roads through the Bald Eagle Val-ley are clay or earth roads. Snow shoe and Burside townships have considerable extent of clay roads. In Nittany and Benerally roads. In Nittany and

Pennsvalley there are many clay roads. The purpose of this article is to talk about building the best clay or earth roads at the lowest expense. In other words, how the best roads can be built for the least money; and it can be done by adopting the proper method, one that has been thoroughly tested, and

The above is an illustration of the famous King Split Log Drag, invented ten years ago by D. Ward King, of Maitland, Mo. It is a simple, inexpensive, home-made implement that any farmer with an axe and and auger can make the drag at an angle of 45 degrees, moving the dirt to the centre of the road. The action of the drag is governed by four things: Ist. The Length of The Chain, which is regulated by slipping it backward or the drag is constructed by slipping it backward or the statement of the direct to the centre of the road. ten years ago by D. Ward King, of Maitland, Mo. It is a simple, inexpen-sive, home-made implement that any farmer with an axe and and auger can make. To day all the states in the Mis-sissippi valley after extensive tests are

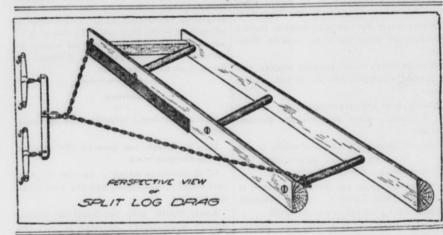
of the twist that will be found in split-ting even straight logs. After splitting a log, when you place one of the slabs on edge, with face of one end plumb, the face of the other end will not be plumb; will not be at right angles with the fhoor. By selecting proper slab for front of drag, this obliqueness can be used to give ditch end of slab a chisel-like action on the road surface, while the other end of same slab will have its face perpendicular or plumb. This is a fine point and may be a little hard to see, but

perpendicular or plumb. This is a fine point and may be a little hard to see, but it will pay big if you can grasp the idea. The same effect is produced by inserting a three-cornered strip of wood under the steel at ditch end of a plank drag. Without any doubt the half of a solit a three-cornered strip of wood under the steel at ditch end of a plank drag. Without any doubt, the half of a split log is the best shape for drag material. I have made several splendid ones from ends of cedar telephone poles. If forced to use plank get elm or cypress (or something strong and light) 2x12 of proper length and reinforce it length-wise of its centre by a 2x6 so there will be four inches of wood through which to have with costly road scrapers, yet they have bad roads. They are in shape for testing the "King Split Log Drag." The following are the supervisors elect-

ends of cedar telephone poles. If forced to use plank get elm or cypress (or something strong and light) 2x12 of proper length and reinforce it length-wise of its centre by a 2x6 so there will be four inches of wood through which to bore two-inch holes for stakes. By this arrangement of the plank the shape of the log slab is approximated. The following are the supervisors elect. Boggs—H. L. Curtin and J. L. Aikens. Boggs—H. L. Curtin and J. L. Aikens. Union—Arista Lucas. Taylor—M. C. Walk and David Howard. Huston—L. C. Bullock. Worth—H. F. Cherry. about ten years ago, Mr. D. W Ward, King of Maitland, Mo., began to drag (or we of the east would say scrape) the road of his farm with a simple inexpension

road of his farm with a simple inexpe home-made drag, and today we find the Agricultural Experimental Stations of in numerous different styles, but 1 mid nothing suits me better than hedge, or straight oak stakes. If the stakes are properly wedged, money spent on long bolts is wasted. It has a d fancy points the stakes are these details and fancy points I hope these details and fancy points will discourage no one. Never forget that the poorest drag used in the poor-

Some of the largest railroad systems of the west see the worth of Mr. King's method and furnished him with a special train to go over its lines and talk to the crowds that gather at the stations, for it is extensively advertised and it is known what time the train will reach the dif-ferent towns. Each farmer is urged tor make a drag and work the road by his farm and many are doing so, and as those strips worked are about the only good roads the mail carriers find, the carriers have more to say about how suc-cussful it is than anything known before,



highway departments and agricultural weight on the drag. If your drag is too heavy, shorten the chain. and individual farmers to use, as the simplest, cheapest and best method of building and maintaining their earth roads.

Some of the large railroad systems in the West employed Mr. King and fur-nished him with a special train to go along its lines and teach the crowds of farmers, who gathered at the stations, how to build good roads. Recently the good roads association of Lycoming county held a public session in William-sport and employed Mr. King to come there and tell them all about his drag and how to operate it.

since then we have seen

endorsing this device and through their the chain longer is equivalent to putting

the log slab is approximated.

I have seen a great many drags made in numerous different styles, but I find

est manner by a man who wants to learn will surely improve the highway.

DIRECTIONS FOR OPERATING DRAG

2nd. The Position of The Snatch Hook, which attaches the double trees. To move much dirt or cut small weeds hitch the hook close to the ditch end of drag and stand as nearly on the end of the front slab as is safe. Drive very slowly when thus hitched. This one hitch seems to be the hardest to learn. The others suggest themselves.

3rd. Position of The Driver on The Drag.-To move dirt see above. In a gorra, I knew I was getting thin, soft spot stand on rear slab. On a hard I nivver thought you could see t sport and employed Mr. King to come spot stand on front slab and drive slowly. there and tell them all about his drag If the drag clogs with straw, weeds, sod much!"-London Tit-Bits. or mud, step to a point as far as you can get from ditch end of drag. To drop dirt in a low place step quickly from ditch end to other extreme. To fill a low place or mud hole nicely is the severate test of skill with a drag. severest test of skill with a drag. I suspect you will become thoroughly disgusted when you first make the effort. But remember it will not be the fault of the drag if you fail. 4th. Presence or Absence And Sharpness or Dullness of The Steel. The steel may project half an inch be-low the wood at the ditch end of the steel, but should come up flush with the wood at other end of the steel. After a clay or gumbo road has been dragged four or five years, the soil becomes so tough and putty-like that one must study it closely to know what to do. Sometimes I use sharp edge steel; sometimes dull edge (holes are bored in both edges of steel so that I can turn it upside down and use same bolt holes), and sometimes the plain wood.

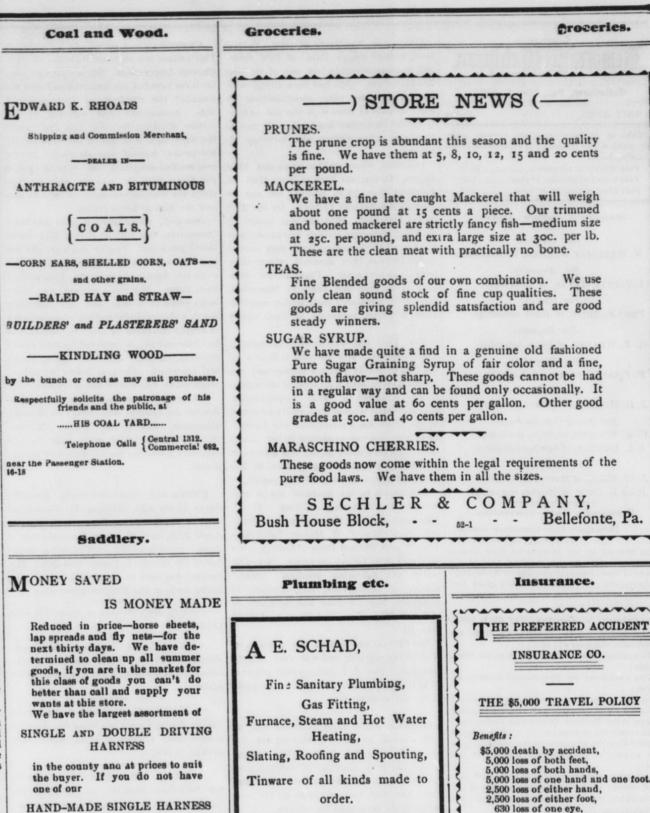
The "King" system has for its main idea the opposite principle of good farm-ing, that is to work the road when wet, to let the water run off freely so the mud will bake. After several workings, the road will be harder, shedding rain much better than before it was worked and will keep water from standing on the road or in the ruts, as standing wat-er is the worst enemy of either dirt or stone roads.

The drag will smear the soft-mud over the top of the road bed in a layer; with sunshine, wind and travel, this layer will become hard. Another dragging will put on another layer, and make the roads harder, smoother and impervious to rain.

Could See Too Much.

A fine, robust soldier, after serving his country faithfully for some time, became greatly reduced in weight, owing to exposure and scanty rations, until he was so weak he could hardly stand. Consequently he got leave of absence to go home and recuperate. He arrived at his home station looking very badly. Just as he stepped off the boat one of his old friends rushed up to him and said. "Well, well, Pat, 1 see you're back from the front."

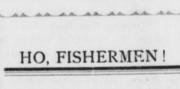
Pat looked worried and replied, "Begorra, I knew I was getting thin,



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Williamsport papers and interviewed prominent citizens from that place. They inform us that split log drags are in use now in every part of Lycoming county and marvelous results have been accomplished. Even in the city of Williamsport they have graded many of the unpaved muddy streets and made splendid driveways out of them.

With all the testimonials we have read from all parts of the country, we think that Centre county road supervisors, our Grange organizations. and the public in general, should give this question proper consideration. We understand that a strip of new road at State College, leading to one of the experimental stations,

For the benefit of our farmers we clip the following from a circular issued by the Lycoming county Good Roads Association which was carefully prepared and gives all details for building and operating the drag. We want every farmer to preserve this article, because we believe in a short time split-log drags will be in general use, therefore preserve the following, as you will be making one before long:

HOW TO MAKE THE DRAG

Mr. King says:

The most common mistakes I notice are (1) making the drag too big and heavy, But if you drag in the sloppy mud and and (2) using tumbers with too wide a the weather remains settled, the sun and and (2) using tumbers with too wide a face on the ground.

The halves are thirty inches apart (inside measure). The fourth diagonal stake

Take a log seven to nine feet long and ten to twelve inches in diameter and split it in halves. Set the balves do split it in halves. Set the halves flat use if banks prevent water from getting sides to the front, fasten thirty inches to ditches. apart (inside measure) with three strong two inch auger holes, bored through the slabs. Both slabs are same length but rear one should extend fourteen or six-teen inches away from ditch end of front slab as indicated on picture. The teen inches away from ditch end of front slab as indicated on picture. The driver's board had better be a platform of inch boards, cleated in such a man-ner that the cleates (dropped between the grader permanent. The most difficult part of road drag-ging is getting at it. All the rest is so simple that one learns it in doing. Now is the time to get the greatest returns from dragging. Not a day's time should of inch boards, cleated in such a man-ner that the cleates (dropped between the stakes) will hold platform securely on drag. To do best work driver should be able to walk over drag quickly and securely.

wrap one end around an end stake, carry it over top of slab, out of double trees the road gradually. and then back to ditch end of slab, where it should be slipped through a bored hole and can be fastened by pok-ing a bolt through one of the links. The hole should be bored three or four inches from end, of slab, and about it four a smooth oval roof over road that will shed water. After every rain or wet spell put your road into con-dition to shed the next rain. Travel inches from end of slab and about its centre up and down. This puts rear end of chain up out of the way of the dirt as it drifts along the face of the slab and allows the length of chain to be you

altered. (See cut above.) Face about four feet of ditch end of front end of slab with iron; an old wag-on tire or any piece of flat steel will do. This may project half an inch be-low wood at ditch end of steel, but should come up flush with wood at oth-er end. The steel is not absolutely. necessary at first. We are indebted to Ralph Gibson, secretary of the Good Roads Association of Lycoming county, for the above cut. He will cheerfully supply any informa-tion at his command, if only an inquiry is made. Yesterday he sent us by mail the following note; "Made a trip north of here today. Dragged roads are like park drives should come up flush with wood at oth-er end. The steel is not absolutely, necessary at first. One of the slickest little sleights of drag building is the taking advantage

This can be learned only by experience, and you have several years in which to study the problem.

At the beginning of this agitation I was careful to urge the necessity of waiting a certain period before using the drag. The experience of some of my neighbors and others has converted me to the theory that the only time dragging hurts the road is when it is too dry, when it has a tendency to produce dust. wind will bake and harden the smooth This drag is made from a log seven surface and the road will be improved. feet long and ten inches in diameter. However, in the best interests of the road and team it is better to drag while the soil is still moist, yet sufficiently dry so that it will not stick to the face of the

Don't drive too fast.

Don't walk; get on the drag and ride. Don't wait for the big grader to come and shape up your road. All you can do first will help to make the work of

from dragging. Not a day's time should be lost

First drag the wheel tracks. If road To fasten chain (or heavy wire), simply rap one end around an end stake, car-

We are indebted to Ralph Gibson,

"A lady one day remarked to the mous novelist and politician how ode was that a dove (derived from word colombe) should have been s to find the Old World and that Col bus (Colombe) should have found new. Sir Edward replied:

"'Yes, and the one came from No the other from Genoa.' "

True Enough.

Cassidy-Shure, how kin ye say save money? Iv'ry cint ye iver m ye spend. Ye lay none of it by. sey-That's how I save. If I laid a of it by some wan would come al an' borrow it, an' that'd be th' inc it.-Philadelphia Press.

Effective. "Have you got something that remove superfluous hair?" "You bet I have!" "What do you call it?" "My mother-in-law."-Houston P

OF UNTOLD VALUE

THE INFORMATION CONTAINED IN

ra, I knew I was getting thin, but hivver thought you could see that ch!"-London Tit-Bits. Noah and Genoa. In his "Rambling Recollections" Sir mry Drummond Wolff tells the fol- ring story of Bulwer Lytton: A lady one day remarked to the fa- us novelist and politician how odd it s that a dove (derived from the rd colombe) should have been sent find the Old World and that Colum-	 \$25.00. We carry a large line of oils, axle grease, whips, brushes, curry-combs, sponges, and everything you need about a horse. We will take pleasure in showing you our goods whether you buy or not. Give us a call and see for yourself. Yours Respectfully, JAMES SCHOFIELD, Spring street, 34-37 BELLEFONTE.
s (Colombe) should have found the w. Sir Edward replied: "Yes, and the one came from Noah,	Flour and Feed.
other from Genoa.'"	2 - a mananamananananananananananananananan
True Enough. Cassidy-Shure, how kin ye say ye	CURTIS Y. WAGNER,
ve money? Iv'ry cint ye iver make	BROCKERHOFF MILLS, BELLEFONTE PA.
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plaint will stand in his own light if he does not tollow the valuable advice offered here.	OFFICE and STORE, - Bishop Street, Bellefonte.
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severe backaches and felt dizzy when i	SOFT DRINKS
arose in the morning. I was often so tired and worn out during the day that I could hardly do my work. The kidney action	The subscriber having put in a com- plete plant is prepared to furnish Soft
was also irregular and caused me to lose much rest at night. I was advised to try	brinks in bottle such as SELTZER SYPHONS,
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used part of a box when that tired feeling vanished and the kidneys became regular	SODAS,
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