

# BUILDING ROADS *by* CONVICT LABOR



## CONVICTS AT WORK



many are studying the system as applied in other states.

Good roads advocates are giving increasing attention to the question of the employment of convicts in road building. Throughout the country state good roads associations are adopting resolutions favoring the adoption of the convict labor system. Good roads organizations and advocates are discussing the merits and disadvantages of the plan, and

Colorado has been using convict labor for the last seven years. So successful has it proved in this state that others have modeled their laws and plan of operation after those of Colorado and the governors during their annual conference at Colorado Springs last August spent much time in studying at first hand the wonderful highways that Colorado has built by convict labor. Twenty-four governors made up a party for a trip of inspection over the Colorado Springs-Canon City Highway and the Pikes Peak Ocean to Ocean road in Ute Pass, two of the most perfect mountain roads in the United States and two of the best examples of the results of convict labor.

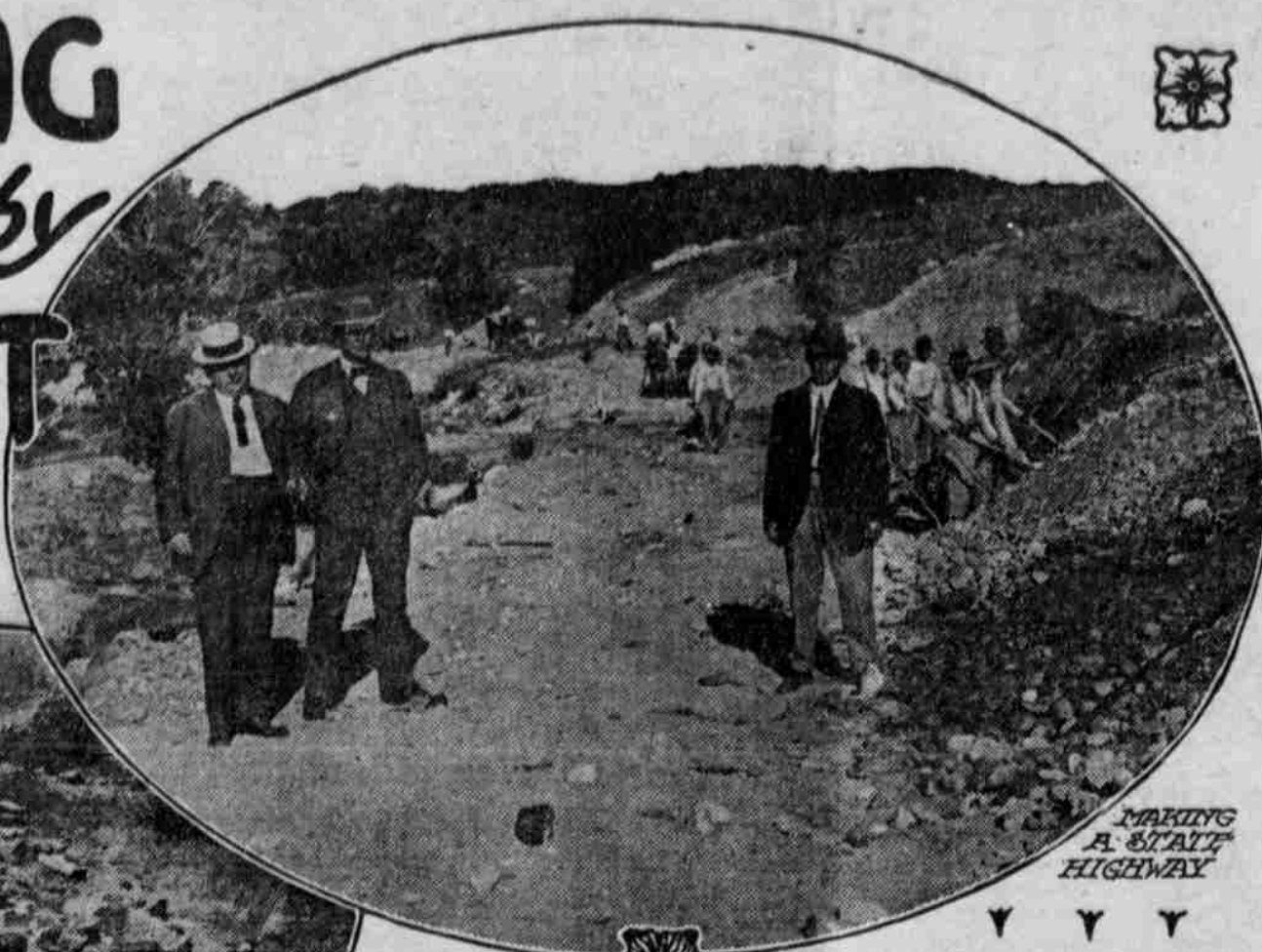
The Colorado Springs-Canon City highway is one of the best examples of scientific road building in the state; perhaps the country. For a distance of twenty miles or more south of Colorado Springs the road winds around the foothills and mountains, practically the entire roadbed having been cut out of the hillside and in many places blasted out of solid rock. For the remaining twenty-five miles to Canon City the way is over foothills and through undulating country. Besides being a marvel in engineering, the road is one of the best scenic and picturesque in the West, passing as it does through Red Rock Canyon, Dead Man's Canyon and many other mountain beauty spots. It culminates in the far-famed highway to the top of the Royal Gorge and the unique and spectacular Sky Line Drive, at Canon City.

The road averages eighteen feet in width and is perfectly crowned and drained. Although it offers a succession of climbs, so skillfully was the engineering work done that heavy grades have been eliminated and the motorist is confronted with only one grade as high as six per cent.

Ute Pass is one of the historic gateways of the mountain country and down its sides centuries before Columbus discovered America, the Ute Indians had worn, with soft moccasined tread, a plainly distinguishable trail. In building the first road across the range to freight supplies to Leadville, Aspen and the other mining camps, the white man followed the trail of the Indian. A few years ago the main portion of this road between Manitou and Cascade was entirely rebuilt by convict labor. It has been pronounced a most splendid example of road building. It has a wide, well crowned roadbed surfaced with disintegrated granite from the mountain sides. Grades have been reduced and although the road overcomes an elevation of 1,125 feet in a distance of five miles the climb is gradual and is easily negotiated. It is over the Ute Pass road that the Pikes Peak Ocean to Ocean highway enters the mountains after striking straight across the plains of central Colorado to Colorado Springs and Manitou. Thence it continues westward through South Park over Tennessee Pass down the valleys of the Eagle and the Grand rivers to Grand Junction and the Utah line.

Pueblo county also has employed convicts to advantage, and a notable piece of road is the stretch just north of Pueblo on the road to Colorado Springs. Garfield county, on the western slope, last year engaged 50 convicts for a period of four years, and they have just completed work on the Pikes Peak Ocean to Ocean highway west of Glenwood Springs and are now engaged in rebuilding the road through the Canyon of the Grand river. Weld and Larimer counties, in northern Colorado, also have many miles of splendid road to show for the work of convicts during the last two years.

Wherever tried, the results have been satisfactory. This applies especially to the benefits derived by the convicts themselves. Under the Colorado system, the convict is allowed ten days off his sentence for each month of labor on the roads. This is in addition to the usual reduction for good behavior. Besides, in Colorado, the employment of convicts on the roads has been singularly successful because the cost of building many of its mountain roads would be almost prohibitive if the state were compelled to construct them under ordinary conditions. The entire country has reaped the benefits of Colorado's pioneering because it has been able to open to travelers from all sections of the country some of its most splendid mountain scenery; it has furthermore set the example for many of the other states in the adoption



IN UTE PASS, NEAR MANITOU, COLO.

of some system for the employment of convicts on state and county roads.

In speaking of what can be accomplished in the way of road building by the use of convict labor, Thomas J. Tynan, warden of the state penitentiary under whose supervision the work the last three years has been done, recently said:

"The benefits in this or any other state from a broad and scientific system of convict road building can scarcely be estimated. Basing our figures on actual experience we are confident that we can construct in the next ten years more than five thousand miles of the very finest roadways for less than \$500,000 and this without adding anything whatever to the burden of the taxpayers.

"During the period of ten years the internal revenue fund of Colorado should amount to \$2,000,000. After deducting \$500,000 for road construction, the remaining amount should be wisely expended in bridge building, road repairing and for similar uses. Add to this the financial assistance from the different counties, and it would enable us to construct not less than 10,000 miles. It can be done in Colorado. Why should not the same conditions apply to other states under more favorable conditions where the roads are naturally better and where cost of construction would not necessarily be so high as in our mountainous sections?

"To illustrate better the great saving to the taxpayers on this class of work and its possibilities, let me quote a few figures from one of our road camps. During one month we worked 35 men on the road not including the camp help. The number of days employed was 244. Each of these 35 men rendered to the state, labor equivalent in value to \$2 and \$3 a day. The labor for each man cost the state exactly 25 cents per day. Had this number of men been employed at the regular standard of wages of say \$2.00 per day per man, the cost of wages alone would have been \$1,632.50. Each day's work thus represented a net saving of at least \$1.75 per man. The total cost of all the work for the month, including salaries, care of stock, feed for teams and cost of equipment was \$515.15, or 47 1/2 cents per day per man. When these figures are considered no one can doubt for a moment the economy of building roads with convict labor. The roads are carefully and thoroughly inspected by competent engineers who testify to the completeness and high character of the work. 'What is the incentive for the men to create such great work?' is a question often asked Coloradoans. It is just this: the man who is allowed to leave the prison for the road camp has practically seen the last of prison life if he conducts himself properly; his food is better; his clothing is better; his self-respect is preserved and he is taught self-reliance and sustained application. He earns an additional ten days a month during the time he works, which very materially reduces his sentence. Eliminating the policy of armed guards, the men have been placed under skilled and competent overseers and guarded only by their word of honor not to run away. They remain faithful and loyal to their pledges. The success of such an honor system was instantaneous; the plan has worked out better than its originators expected. During the last three years we have had more than one thousand individual prisoners in the convict camps. These men without guards—some 300 miles away from the prison—have created a national reputation for loyalty. Less than one per cent have violated their pledges and made suc-

cessful escape. Communities no longer fear to have our convict camps established near them. We have made manhood as well as money by this healthy, hearty outdoor labor. We have built the prisoners up both physically and morally. Men discharged from our road camps do not have the prison pallor, the physical weakness and the hesitating, hang-dog appearance of the typical discharged convict. They are bronzed, sturdy, healthy, efficient laborers and are in demand as such. About 20 per cent of those we have sent out upon the completion of their sentence have made good. The other 20 per cent have mostly found their way back into prison elsewhere.

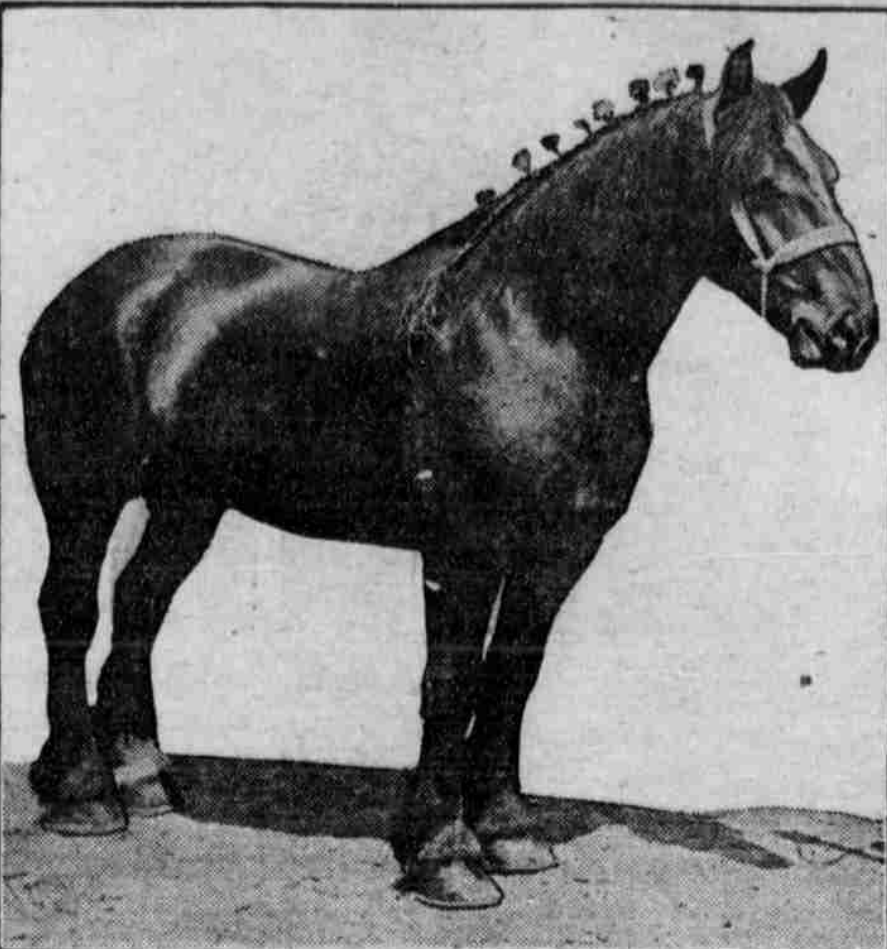
In his last biennial report Warden Tynan had the following to say with reference to the financial side of convict road building:

"Our largest item of labor performed by the convicts was, of course, the road work. The prisoners have been employed in the construction of roads in Mesa, Fremont, Larimer, Weld, Boulder, Jefferson, El Paso and Pueblo counties. They have built 157 miles of good roadway and a great deal of this has been blasted out of solid rock—that in Mesa county being the most difficult and heavy work ever attempted by our men.

"Owing to the fact that it was impossible to get from the various counties the cost of material such as cement, lumber, steel, corrugated culverts, powder, tools and supplies, other than actual labor used in road and bridge building we are enabled to give you only the labor cost to these different counties for the work of the men. This work has been done at an average cost to the different counties of 32 cents per day per man; and as this cost includes Sundays and holidays the cost of labor of these men to the counties for the two years, or 731 days, would be \$36,725.44. We have worked twenty-one state teams and the feed for these teams cost the counties \$20 per month per team, which would amount to \$10,088; making a total cost to the counties for labor of \$46,805. The average labor cost for the 157 miles was \$298.12 per mile.

"It is hard to estimate the immense value of these roads for the reason that the work in Mesa county alone would have cost, with free labor, not less than \$25,000 per mile, as the rock in places had to be blasted for 75 feet in order to get a proper roadbed. In this work it was necessary to drill holes 25 feet deep and to drill three depths before the roadbed was reached. So you can see the magnitude of this work. The work in Ute Pass, in El Paso county, was done through solid rock for six miles, all blasting. The work in Salt Canon and Parkdale Hill, in Fremont county and Ingree Hill, Cherokee Hill and Thompson Canon in Larimer county have been very expensive work, because of the blasting. This necessarily would have been very much more expensive had it been done with free labor, and the counties would have been forced to pay big salaries for drillers, blasters, powder men, masons and cement workers. Not counting what the contractor's profits might be and not including any skilled labor, except blacksmiths, cement workers and masons, and estimating the cost of free labor at \$2 per day, by eliminating Sundays and holidays, we may count 132 men working 210 days at \$2 per day which would give us a labor value of \$161,040. We have worked an average of twenty masons and cement workers, which would have cost the counties \$5 per day, and would have amounted to \$61,000. We have averaged five blacksmiths, whose labor is estimated at \$4 per day and this would have amounted to \$12,320. Estimating the value of 21 teams at \$2.50 per day per team for 610 days, it would have amounted to \$32,025. At a low figure the value of the labor of these men and teams would be worth to the counties \$266,285. Add to this a depreciation of state equipment, \$2,000 and the interest on state equipment \$2,000 and you can see that this labor has been worth to the different counties \$270,285. The difference between what the free labor alone would have cost the public—namely, \$270,285—and what the labor of our men actually cost them shows a labor profit of \$233,479.56. However, this labor did not compete with the free labor of the state, for the reason that the counties could not otherwise have afforded to do this work."

## ECONOMICAL FEEDING OF THE FARM STOCK



Superior Type of Farm Horse.

(By J. T. GRANGER.)

The farmer, like any other business man, should study the most important question of economy.

Much of the farmer's capital is invested in work and breeding stock. If he feeds them economically, at the same time keeping them in good working and salable condition, he is following out business principles.

If, on the other hand, he either stunts them or allows them to waste provender and grain, he loses money.

The writer, in traveling among farmers, sees many methods of feeding employed. One friend gives his horses and mules hay and corn in abundance, but is very careless about watering and cleaning out the stalls.

Old and young stock are treated alike. The colt three months old gets his corn and hay ration, less in proportion, but still just the same feed, irrespective of cost or age of the animal. No attention is given to details of stable management.

By the time winter is past the stock on the farm (old and young) have eaten tons of hay and quantities of corn, but with the advent of spring they are not in salable condition.

Another farmer friend feeds liberal grain rations to his horses and mules, but sells off his good hay and feeds only refuse forage.

Here we have a misplaced idea of economical feeding on the farm, for this man's stock will be rough and in poor condition when spring comes.

Another instance of poor judgment in feeding. The writer saw a farmer



Two-Year-Old Mule Colt.

this winter who was selling off both grain and hay and putting the money in his pocket and feeding reduced rations to his work and breeding stock.

Here was the very worst example of mismanagement, entailing a loss hard to make good.

Make these resolutions: Don't give all your best feed to your work teams or breeding stock, at the same time neglecting all sanitary arrangements; don't think that liberal grain rations with common forage will fill the bill. Don't sell the grain and hay to such an extent that you may have to buy from your neighbor next spring.

Corn stover with grain will do from now until the first of April, but brood mares and weanlings, also one and two-year-olds, will require some bran along with corn ration, or they will not be thrifty after the winter season is gone.

All stock should be well housed, well bedded and well watered. No amount of food will give good results unless the stock is taken care of in every respect.

With regular work horses and mules on the farm during the winter period a good feed of corn morning and night, with plenty of cut corn stover, will do. With brood mares and colts some hay and bran should be added.

Take a brood mare, for instance. Give her six ears or two quarts of shelled corn, with two quarts of bran, morning and night. Give a feed of hay, clover preferred, for the morning meal, and the same grain ration, with plenty of stover, at night.

For the young stock a little less corn, but plenty of hay and stover, and probably a little less bran. No matter how well bred the colt may be, if not treated generously in his first year he will seldom pay his

way; and if not cared for properly, even until his childhood days are over, he cannot be expected to make a high figure.

There is no objection to weaning in fairly good time, but it is absolutely essential to give some good substitute for milk.

By way of grain, good crushed oats may be served as generously as they are cleaned up. Carrots are good and sweet hay may be given whenever eaten with a relish.

The oats should be old and the hay not of the present year's crop. Too many foals should not run together, else the weaker go to the wall.

Economical feeding means good, solid feed, fed regularly, no waste, yet no stinting. Good warm quarters, good bedding, fresh water in liberal supply at least twice a day.

Follow these simple rules and the appearance of your stock next spring will justify the extra trouble.

## BEST LOCATION OF HOUSE FOR SWINE

Structure Should Be on High Ground, Well Drained—Ventilation Is Important.

(By A. B. WILLIAMS.)

Locate the house for the hogs on high ground. That is the first and one of the most important things to consider. The location must be well drained, and if the soil is light and sandy, or porous, so as to afford good soil-drainage, so much the better.

The house should have direct access to the pasture if that is possible, even if it is a short walk from the barn. In fact, the farther away from the barn and the dairy house the better.

If it can be located near a stream of running water it will be a decided advantage, because hogs like to cool themselves in clean water or clean mud; and running water affords this, as well as pure drinking water, which is absolutely necessary.

It is all well enough to say that hogs do not like to wallow in mud, and do so only from necessity, but that is not so. They like mud because it is cooling, and it is an effectual lice killer.

It is not good for hogs to be compelled to lie in mud, and keep constantly covered with it, but a good wallow, occasionally, seems to agree with them.

Of course hogs may do without mud, provided they are able to reach clean water, and are kept free from lice by spraying.

There are many styles of hog houses, and every man must decide for himself which is best under his conditions. The best house is one that has perfect ventilation, plenty of light.

For farrowing purposes or for individuals, the movable house is excellent. This kind of house is easily set up and taken down, and it also may be placed on runners by which it can be easily moved from one pasture to another.

The roof should be sloping enough to allow the rain to run off quickly, and there should be enough windows to let in the sunlight and air.

Foundation of Hog Herd.

On no account start the beginning of your future herd with anything but a pure strain of thoroughbred hog. Buy registered stock; one knows then what he is getting.

Horse Appreciates Blanket.

If you do not think horse blankets would be appreciated by the horses these cold evenings or mornings, try sleeping without any covers yourself.

Keeping Disease Away.

The first step in keeping diseases away from hogs is to keep filth away from them.

No Place for Scrub.

The scrub hen has no more place on the farm than the scrub anything else.