ADAMSVILLE ROAD IMPROVEMENT, 1930
Relocation to Eliminate Two Sharp Turns
Labor: 565 hours at 40 c per hr ..... $\$ 226.00$
712 hours at 45 c per hr . ..... 320.00
236 hours at 50 c per hr. ..... 118.00
Trucks: No. 8 American LaFrance, 82 hours at 40 c per hr ..... 32.80
No. 9 American LaFrance, 43 hours at 40c per hr ..... 17.20
No. 11 G. M. C., 81 hours at 20 c per hr ..... 16.20
No. 14 Reo, 80 hours at 40c per hr ..... 32.00
No. 16 American LaFrance, 124 hours at 40 c per hr ..... 49.60
No. 17 American LaFrance, 107 hours at 40c per hr ..... 42.80
Tractors: No. 2 Holt, 178 hours at 40 c per hr . ..... 71.20
No. 6 Caterpillar, 190 hours at 70c per hr ..... 133.00
Loader: Barber-Greene, 72 hours at 40c per hr ..... 28.80
Insurance on men and machinery ..... 27.16
1852 gals. gaseline at 18.4c per gal ..... 340.77
204 qts. oil at 20 c per qt. ..... 40.80
126 lbs. grease at 14 c per lb. ..... 17.64
552 cu. yards gravel at 25 c per cu. yard ..... 138.00
421 cu . yards gravel at $\$ 1.25$ per cu. yard. ..... 525.25
Total ..... \$2,178. 62

# CRUSHER-RUN STONE ROADS 

By Edgar A. Nesbitt, Jasper County Engineer

By crusher-run stone roads, we mean roads built of crushed stone all of which had passed a screen of given size.

Jasper County standard stone-road specifications call for the stone to be crushed until all passes a screen with one-inch circular openings. For the last eight or nine years we have built our roads of one-inch, crusher-run limestone to a width


Fig. 1. Crusher-run stone road 10 inches thick, all passing one-inch circular screen.
of 10 feet and a depth of 10 inches. Except in special places, we have specified a 40 -foot right-of-way and a grade width of 22 feet. In some places where heavy cuts and fills were encountered, the width of the right-of-way has been specified as 50 feet.

After the grade of the road has been completed according to the plans and specifications, a stone bed is cut to the depth of about 3 inches with a grader. Then 10 -inch side boards are placed and aligned to the proper spacing of 10 feet. The stone is then put in to the full depth of 10 inches between the boards and banked with earth before the boards are carried ahead. No rolling is required and the road can be turned over to traffic as soon as the stone is placed.

The one-inch size of stone is ideal from the maintenance standpoint as the road does not mat or pack too quickly, giving the maintainer a chance to fill the small depressions and smooth out irregularities of the stone surface.

After the road is finished by the contractor and turned over to the maintenance department, an effort is made by the superintendent in charge to drag the road very often for the first 30 to 60 days to give the desired smoothness before it becomes packed too hard.

Roads of this type can be constructed very cheaply. The contract price of the few roads we built this last year are as follows: The Kirk Road, $\$ 4665$ per mile; The Hurley Road, $\$ 4500$; The Bernhardt Road, $\$ 3878$; The Clark Road, $\$ 4550$; The Fleming Road, $\$ 4998$, which included a rather extensive bridge repair; and The Schwanke Road, $\$ 4461$.

Three road contracts were let last month by the county commissioners for the following amounts: Kader Road, $\$ 4100$ per mile; The Parks Road, $\$ 3742$ per mile; and The Overton Road, $\$ 3663$ per mile. These sums include the grading, culverts, and bridge repairs in each case. The haul on all roads mentioned varied from 3 to 12 miles.

# COMBINATION STONE AND GRAVEL ROADS 

By B. C. Samples, Warrick County Engineer

Some two years ago the Warrick County Board of Commissioners was confronted with a problem of no slight significance, namely, that of being rushed by petitioners of township roads whose petitions had been filed nine to eleven years with the auditor. In the years in which the road petitions were filed it seems that the engineer and viewers were set upon waterbound macadam roads consisting of about 10 to 12 inches of 6 -inch stone for a base course, then rolled and screened in

