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Charleston and Memphis Railiroad.
The Commissionera' Court of Laudordale county, in Tennessee, has subscribed $\$ 30,000$ to the Charleston and Memphis Railroad, provided the road be located on the north side of the Tennessee river, in that county. Madison county has subscribed $\$ 100,000$, unconditionally, to the same enterprise, and the peotionally, to the same enterprise, and the peo-
ple of Marshail county, Mississippi, have voted, nearly unanimously, to contribute the same amount.

Utica and Susquetianna Raliroad
At a recent meeting at Utica, N. Y., of those favorable to the building of a road to run from that place and intersect the New York and Erie Railroad, a committee reported in favor of laying the route through the valley of the Unadilla and Susquehanna, cutting the New Yortand Erieroad at Deposit, as a terminua, with a branch from a point four miles north for the purpose of receiving coal. The road will be 84 milen long, and will cos $\$ 1,680,000$. A committee was appointed to draw up articles of association.

Georgia Rallroad
The Macon Messenger says that the entire length of the Georgia Railroeds now in opera tion, viz : the Central, Georgia, Macon and Weatern, and Weatern and Atlanric Roads and Athens Branch, is 642 miles. The extent of railroads completed and in progress is 956 miles. The roads already in operation are all prosperous, and are realizing from 8 to 16 per cent. clear profits per annum. Thus is demonstrated the wiedom and importance of a proper system of improvemento. Georgis after expending nearly fourteen millione of dollars is now twice as rich as when she commenced her noble enterprise.

Llabilities of Rallroad Companies.
The Supreme Court of Massachusetts, by a second decision, have laid down the principle that railroad companies are not liable for a person, not a passenger, injured or killed while carelessly upon the track. Upon this question of law the case will go before the whole Court.

## Arteslan Well

Mr. Welton, asys the Charleston Mercury of the 1st, has gone to the depth of one thousand feet and is now engaged in putting down his tubes to secure further operations. For nearly thle whole depth, with the exception of a few occasional boulders, he has cut through a bed of marl. We have not seen the chemical analysis, but such is the appearance. His latest borings show a considerable increase of sand and the rise of water above the surface is a very hopeful indication.

There are now sixty-five steamboats on the California waters. Three yeara ago there wae not one.

NEW-YORK, FEBRUARY 22, 1851.

SPIKE MAKING MACHINERY.---Figured.


This is an improvement on Spike Making ther. $A$ is the bed of the machine; B B are Machinery, by Mr. Thomas Rogers, of the Bergen Iron Works, New Jersey, who has taken easares to eecure a patent.
Figure 1 is a plan view. and figure 2 is a side elevation, with one side of the frame removed. The same letters refer to like parts. The two feeding rolls in this machine are also the forming and cutting rolls. They are provided with grooves running round their peripheries to form the shanks, and they have also indents to form the heads with knives to cut them off. Each roller may have any num. ber of grooves, and these may be semi-round or consisting of the diagonal of a square, as the two in figure 1 is represented to be. Fach roller bas its groove made half the form, and the depth of the one in the roller above it, so that the two grooves coming together form the apike, bolt, or whatever it may be. letween them, by their united form and action. The two spike rolls do not revolve entirely, but have a semi-rotary motion, moving forward to form the spike and then back to receive ano two ceg forming the standing frame; C C are their bearinge in the shafte, $D$; they have wheels gear into one anuther, and may be driven by any convenient power, steam or otherwise; E E are two cranks keyed on the shafts, D, of the cog-wheels-one on each. These cranks are placed one above another, and are attached to connecting rods, F F; these connecting rods are connected to a kind of crank levers, G G, inte the shoulders of which the outer ends of the spike rollers are inserted. These levera have alots, $f f$, in them. The cranks, $E$ E, the connecting rods, $F$ F, and the crank levers, G G, are of equal length and placed one above the other; it will therefore be observed that, as the cog-wheels, C C, revolve, their cranks will only give a semi-rotative motion to the rolls, $H \mathbf{H}$, by the slotted crant levars, G G. The feed rolls, $\mathbf{H} \mathbf{H}$, are made with grooves, $b b$, running around them. These grooves receive the iron bars for the
spikes. There is also an indent, $d d$, upo
Figure 2.

each roll; this indent is to form the head of king long and shortspikes, bolto, \&cc. The spikes the apike. The end of the bar, for the point, may be pointed in any way most convenient. a fed in against a longitudinal ridge or diviion, $e$, , in the groove of each roller, and as it is rolled in and pressed in the grooves into the proper form, the indents, $d d$, meet together and press the iron into them, as into sunk die, and the head is formed at the back of the heading die; there is a metal kniferunning acrose the groove, which cuts off the bar, and answere for a back to the header. When one apike is cut, the rollers move back and another is fed in. The slots, $f f$, allow the shoke-to use a common expreagion-of the
rolls to be altered so as to answer for the ma-
may be pointed in any way most convenient. The connecting rods, F F, are secured to the
cranf leves, $G$ G, at distances from the centre of the rolls exceeding the throw of the cranks, thereby causing the rolls, H H, to draw in between their gooves the heated rods of metal againat the metal butts or ridges, e e, as shown in fig. 2. The stopping plates for heading will oberred at $d$. When no heads are observod at der rolls do not require to quired for spikes, the rolls do not require to
have the heading indents in thera; therefore, one set of rolls may be made with groovea, to make more than one kind of apikea, end they
can easily be met to work on any section of the
groovea, by altering the ends of the rolle in the openings of the slotted levers, G G. More information may be obtained by letter addressed to Mr. Rogers.

To Make Good Mortar.
Sour together a quantity of lime and clean sharp sand, for two or three weeke before being used; work this well and turn it aside, and as the proportion of lime to the sand will always depend on the quality of the former, all that is necessary, is to take care (in sour ing), if the lime is of a rich quality, to put one-third less lime into the heap than it is intended to be built with; and if the lime is of pure quality, eay only one-fourth leas. It may here be observed that in general, lime of the proper quality is best for cementing building. When the lime which has been previously soured, as before directed, is to be used in the building, or otherwise, it is to be again worked carefully over, and one-fourth of quick-lime added in proportions, taking care never to have more in preparation than can le tued in a hort time; and this quick lime should be most completely beaten and incorporated with the soured lime, and it will be found to have effect of causing the old lime to set and bind in the most complete manner.t will become perfectly solid without the least evaporation to occasion cracks, which can only ensue in consequence of evaporation and this can only happen from the want of proper union between the two bodies. But by miring and beating the quick-lime with the oured mortar, immediately before it is applied to use, the component parts are brought o near to each other, that it is impossible ither crack or flaw can take place. In short beating has the effect of closing the interstices of the sand, and a small quantity of lime paste is effectual in fitting and holding the grains together, so as to form a plastic mase, by uniting the grains of sand which otherwise would not fit each other. This system will apply to the lime mortar for all deacriptions of work, whether for building, plastering in the nside or outside of houses, water cisterns, ground vaulta, rough castings, \&c.

## Remedy for Burns.

Dr. Reese, late phyaician of Bellerue Hoepital, New York, has been making experiments con cerning the best mode of healing burns and scalds, and checking the acute suffering. He bas found that flour, thrown on with a com mon dredging box, is one of the best and most efficient remediee yet discovered. The external air is one cause of suffering, and the flour thus applied, both heals and closes the wounde to the atmosphere. The edges of the wounds which remained open he dressed with lime and oil, applied by a feather. Dr. Beese asys the above application made to wounds by fire, hot water, gunpowder, \&c., hès been most happy in the pusctice at the Hoapital
[We published the above once before in more extended form, and wo do it once more, in a few words, to aay that we have seen it ried with poor success.

Yankeo Clock Business.
Mr. C. Jerome, of New Haven, Conn., ma. nufactures upwards of five hundred clocka, of various patterns, every day, and the demand is equal to the supply. In the State of Connecticut, one thousand clocks are made dally. Within late years this Yankee clock basiness has wonderfully increased, and is rery profitable. In England, Yankee clock have superseded all others.

To Preserve Eoske trom Insects.
Introduce into every volume some leaves of a pungent odor, sach as rosemary, or submit them pungent odor, onch as rosemary, or submit the

