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## IRil－Thum Thems．

## Hudson River Railroad．

 The Troy Post gives the annexed statemen of the arrangement between the Hudson Riv－ er and the Troy and Greenbush Roads：＂The Hudson River Company have obtain－ ed a lease of the Troy and Greenbush Rail road，with all its implements and fixtures，for the term of its charter－thirty years－and for all future renewals，paying for the same seven per cent．annually，on $\$ 275,000$－payments to be semi－annually．The lease requires of the Hudson River Company that they shall run all their through trains directly to and from Troy，thus making this the northern terminus of their road．They are also required to keep up the local business of the Troy and Green－ bush Railroad，running the cars，as now，for local accommodation and for transportation． We are informed that the Hudson River Com－ pany will，immediately after coming into pos－ session of the Troy and Greenbush Railroad， construct a double track，straightening the same so as to lessen the distance，and putting down a new and heavier rail than is now used．Some $\$ 150,000$ will be expended for this object the ensuing summer；it is expect－ ed that the work will be completed，\＆new track or tracks constructed through the city－ everything in order－sometime during the en suing Fall．The Hudson River Railroad will be completed between Hudson and Greenbush in May next，when trains will be run di－ rect from Troy to Hudson，and in September the whole line will be finished，and the cars running from Troy to New York．＂

## Railroad Across Florida

The New Orleans Picayune of the 18th inst． publishes a letter from Governor Brown，of Florida，relative to the above named road，and urging its construction upon the favorable re－ gard of the citizens of New Orleans．He says respecting the project：－＂I cannotimagine an enterprise in which the people of New Or－ leans should take a deeper interest．Connect－ ed with the contemplated route from the south－ western coast of the Gulf of Mexico，across the Isthmus of Tehuantepec to the Pacific ocean，it completes the entire line of steam transportation from the extreme Northern States on the Atlantic to the Pacific，passing directly through the city of New Orleans．A glance at the map must impress the mind with the importance of this link between the At－ lantic and the Gulf，through Florida，in great chain connecting the two oceans．＂
The style of the proposed road is the＂Flo rida，Atlantic，and Gulf Central Railroad，＇ and its charter has no restrictions as regards the termini，which may be located at the most suitable points on the Atlantic and on the Gulf side．This railroad will become one of the most important in the whole of our con tinent． ${ }^{\text {tinent．}}$

IMPROVEMENTS IN MACHINERY FOR SAWING TIM－ BER．－－－Figure 1.


This is an improvement on machinery for by the springing of the log，and thus prevent awing timber，invented by Mr．Orlando Child，the heating of the saw by the pressure of the of Granville，Putnam Co．，Ohio，and for which log，which pressure sometimes destroys the patent was granted on the 17th of last De － ember，the claim of which was published on age 118 of the Solentific American．
Figure 1 is a perspective view taken at the back of the saws；figure 2 is a side elevation The same letters refer to like parts．The prin－ ciples of the invention embrace two prominen eatures．One is a strong spring attached to eframe，the object of which is to preven collars，and at the same time will yield to the ressure on the sides of the saw occasioned spinde a saw－mill；B is the stationary saw

Figure 2.

cured on the spindle； E is the driving pulley $F$ is another pulley keyed on the same shaft ； $G$ is a strong spring of fat steel secured at its lower end to the frame，A．On its upper end there is a journal box $q$（letter turned wrong way by engraver），fitting to the spindle，$B$ ． H H are swinging arms attached by metal traps，$h h$ ，to circular bosses， 1 1，provided with flanges to prevent the swinging arms ing their from slipping off．The bosses，I I，are hollow，arches，K K，these bolts pass through the arms，

H $H$ ，and are provided with nuts，$l l$ ，for the purpose of securing the arms，$H \mathrm{H}$ ，to the arches， K K ，and holding them in any required position．$M$ is a spindle carrying a saw， N ，and rotating in bearings bolted to the front of the plank or table，J．P is a drum or pulley fast on the spindle，M．$R$ is a driving band for communteating motion from the spin－ dle $B$ to the spindle $M$ ．$G^{\prime}$ is a spring attach－ ed to one of the arms，$H$ ，it is forked，eachend of the fork passes through a slot in the plank or table，$J$ ，and is attached to a journal box， which fits to a journal turned in the spindle， M ；its effect on this spindle is precisely similar to that of the spring，$G$ ，on the spindle，$B$ ； the apring，$G^{\prime}$ ，is attached to the arm，$H$ ，by a screw bolt，$b$ ，passing through a slot in the spring into the back of the arm，by which it may be adjusted；the spindle，$M$ ，passing freely through，may be moved in the direction of its length so as to set the saw， $\mathbf{N}$ ，in or out of line with the saw， D ，as represented by strong dotted lines，S S，in fig．2．The opera－ tion is as follows ：－if it is required to out a $\log$ ，which would be too large for the saw， D ， to cut through，the arms，H H，are raised to about the position represented in figure 2 ，the lower part of the periphery of the saw， $\mathbf{N}$ ，be ing set rather lower than the upper part of the periphery of the saw，$D$ ，and is secured in such position oy the bolt and nut， $\mathrm{L} l$ ，when it is ready for operation．
If it is required to make two cuts in 2 smail－ er log，the arms，H H，are secured in the posi－ tion shown by lines in figure 2，bringing the saw，$N$ ，almost on a level with the saw $D$ ；the spindle，$M$ ，is moved in the direction of its length，so as to set the saw，$N$ ，the re－ quired distance in the required direction，right or left of the saw，D．The saw，N，may also， if required，be moved to a vertical position clear of the log．Rotary motion being com－ municated by a band to the pulley， E ，or by other convenient means to the shaft，$B$ ，is transmitted by the band，$R$ ，to the drum or pulley，$P$ ，on the spindle，$M$ ，causing both saws to rotate in the same direction
The advantage of using two small eaws，in place of one large one，for cutting thick lum－ ber，is not only in the very great saving in the cost of the saws，but also in the economy of working；the small saws being thinner will cut away less timber and run proportionately lighter and at less expense of power．
In using circular saws，the lateral springing of the timber is found in many cases to press so heavily on the sides of the saw as to cause great friction，and heat the saw to such a de－ gree as to injure it ；this will be obviated by guiding the saw by means of the spring，$G$ ， and its journal box，the spring being of sufficient strength，to prevent end play of the spindle，but at the same time yielding to the lateral pressure，caused by the springing of the $\log$ ，will cause the saw to run lighter，will make less noise，and will make a cleaner cut． More information may be obtained by letter addressed to Mr．Child．

The Duke of Wellington once left his um－ brella by accident，on the stall of a lady of rank，at a fair．On returning to look for it，he was told that the umbrella had just been sold for twenty－five guineas by the lady，who could not resist the temptation of disposing of so valuable a relic，for charitable purposes．

## Large Bailoon．

John Wise，Esq．，of Lancaster，Pa．，is on－ gaged in constructing another monster balloon， to be about three times as large as the＂Her cules，＂used last summer，with which he in tends to prove the certainty of his ability to cross the Atlantic and oircumnavigate the globe．

