New Compressed-Air Locomotive.

Scientific American.

A trial was made on the Second Avenue Elevated Railway, New York, of a new air locomotive on the 23d, and again on the 28th of October, with entire satisfaction to the Pneumatic Tramway Engine Company, who own the machine. In this locomotive air at a high tension is stored in tanks and distributed to the motive cylinders through a reducing valve and then through hot water, according to an old and well known plan, for the purpose of heating it, to counteract the refrigerating effect of the expansion of the air, and also to provide moitsure as a lubricant for the pistons.

This locomotive was built by the Baldwin Locomotive Works, of Philadelphia, and is the invention of Mr. Robert Hardie, of Edinburgh, Scotland. It is on the same principle and an improvement on a street motor that was tested and reported on by General Haupt, whose report was published in the *Scientific American* Supplement of June 28, 1879, No. 182. The obvious advantages of a noiseless exhaust, and the absence of fire, with its disagreeable odors, dust and smoke in a street motor, are claimed for this locomotive, and so far as the experiments are concerned which have taken place in the last few days on the Second Avenue Elevated road, the claim is well established.

The locomotive, as shown in our engraving, consists of four steel cylindrical air tanks of very perfect construction, having dished heads and triple riveted spiral seams in lieu of the usual longitudinal form, and double riveted circumferential seams, all of which are made tight by means of Connery's calking, and tested at a pressure of 850 pounds to the square inch. These tanks, having an aggregate capacity of 400 cubic feet, are supplemented by two smaller distributing tanks, a small steam generator, and a pair of motive cylinders, similar to steam engine cylinders, 12½ x 18 inches, with Stephenson link reversing gear and adjustible cut-off on the slide, connected in the usual manner to four coupled 42 inch driving wheels. The cab is located at the forward or cylinder end of the machine. The method of hanging by means of equaling levers between the drivers and an improved two-wheeled swinging centre bearing pony truck effects the distribution of eighty percentum of the weight upon the drivers and practically carries upon three points of the frame, thereby avoiding undue strains and securing steady motion over inequalities of the track. The initial air pressure is 600 pounds to the square inch at starting, but is distributed to the motive cylinders through the distributing tanks, reducing valves, and steam boiler, at a uniform working pressure, about the same as that of ordinary locomotives. A small fire is kept burning in the furnace of the steam generator, which is a small upright tubular boiler. For the purpose of obtaining a high grade of expansion and a noiseless exhaust, the cut-off is arranged on the back of the slide, as above stated, which is instantly adjustible to any desired grade by means of an ingenious hand device within the cab.

A new and peculiar feature of this engine is the use of the main cylinders for working the vacuum breaks, which is done by simply putting the reversing lever in mid-gear, when the main cylinders become vacuum pumps, thereby greatly simplifying the handling of the train.

On the 26th of October we had the pleasure of a ride on this admirable engine, and we testify to the perfect manner in which it fulfills its mission as a noiseless, odorless, smokeless, and perfectly controllable motor. It will cover the full length of Second Avenue, from 127th Street to the Battery, with four loaded cars, at a higher rate of speed than the schedule calls for, with a single charge of air, and then the recharging is done in as short a time as is needed to change horses on a surface road.

The engine is now in charge of Jno. A Wallace, one of the "L" road engineers, who is more than pleased with it, and especially is he delighted with the absence of anxiety about boiler water, which is the steam locomotive driver's bugbear.

Juvenile chorus—'Why, mamma, how funny the milk tastes this morning.' Mamma—'Well, my dears, owing to the scarcity of water, the milkman had to give it to us in its natural state. Try and drink it until the weather changes, like good children.'

The Texas Cotton Crop.

NEW ORLEANS, November 9.—The Galveston Exchange reports 106 replies from 82 counties, which show the character of the weather since October 1st to have been favorable in 40 counties, and raining and unfavorable in 42. The weather, compared with last year, has been more favorable for gathering the crops in 46 counties, the same in 10, less favorable in 26 and no damage from frost. Eighty per cent. of the crop is reported picked. Picking will probably be finished by the 15th. The average yield is estimated at 500 pounds seed cotton, indicating a decrease of 40 per cent. compared with last year. Forty-three counties report serious damage by worms, which have cut short the top crop; 14 report more or less damage from storms and rust; 25, mostly northern counties, report no damage from either cause.

The State House of Texas Burned.

GALVESTON, November 10.—A special from Austin, Texas, to the *News* says: At noon to-day the old State House was discovered to be on fire, and in an hour and a half the building was completely gutted by the flames. The walls are all standing, apparently uninjured. The fire originated in the basement, the book room used for storing the reports of the Supreme Caurt, on the north side of the building. The fire, when discovered, had been eating its way above and through the Speaker's room. The records of the different offices were generally saved, but much scattered and damaged by the rain falling at the time; some $10,000 worth of the revised statutes of the State, the library worth $40,000, furniture in the legislative chambers, worth $20,000, with the building, worth perhaps $150,000, are a total loss.

Oscar L. Baldwin, the precious rascal who robbed the Newark bank of two million dollars, more or less, was last year a very generous contributor to the Republican campaign fund. It is said that he gave large amounts to Star Router Dorsey to aid in carrying Indiana in October, and he also gave more to the general fund than any man in Newark. If it could only be known just how much money, stolen in one way and another, was used by the Republicans in October and November elections, a good many people would be astounded.—*News & Observer.*

The original copy of Gen. Lee's order disbanding the Confederate Army of Virginia has been presented by Senator Vest to the Mis ouri Historical Society. He writes to a member: "It was placed in my hands by one who, like you and myself, was loyal to the cause for which that army fought and who accepted in good faith the results of its defeat. I received the trust, but upon reflection I think that a paper so valuable to the historian and antiquarian, the last record of an army unequaled in history for its achievements, should be deposited with a society permanent in duration and devoted to preserving the correct history of each successive age."

Seven Spots on the Sun.

Rochestar Democrat.

Seven large spots varigated the disk of the sun yesterday. They were not widely scattered, and might be considered as one group. These spots form the most striking view yet presented during this season of maximum sun spots. Scattered among the large spots are innumerable small ones that appear no larger than a pin's head. An eighth large spot is forming. This wonderful display of solar forces can be easily observed by all possessing telescopes, without danger. Even a spy-glass fixed so that it can be turned to the sun without using the eye, will throw an image of the sun on a white screen.

This image can be brought into a focus by sliding the tube or moving the screen to and from the eye piece until the edge of the sun appears sharp and the spots become visible. The spots can be easily seen on an image three-quarters of an inch in diameter. But the eye must be kept from the instrument or serious injury will result. The earth storms seem to respond to the great storms in the sun with remarkable precision. It is to be hoped that the sun observations during the summer, in connection with the meteorological records, will throw some light upon the exact nature and influence of sun storms upon the earth.

Animals Before an Earthquake.

An Italian writer on the recent catastrophe on the Island of Ischia mentions those prognostics of an earthquake which are derived from animals. They were observed in every place where the shocks were such as to be generally perceptible. Some minutes before they were felt the oxen and cows began to bellow, the sheep and goats bleated, and rushing into confusion one on the other, tried to break the wicker-work of the folds, the dogs howled terribly, the geese and fowls were alarmed, and made much noise; the horses, which were fastened in their stalls, were greatly agitated, leaped up and tried to break the halters with which they were attached to the mangers; those which were proceeding on the roads suddenly stopped and snorted in a very strange way. The cats were frightened, and tried to conceal themselves, or their hair bristled up wildly. Rabbits and moles were seen to leave their holes; birds rose as if scared, from the places on which they had alighted; and fish left the bottom of the sea, approached the shores, where at some places great numbers of them were taken. Even ants and reptiles abandoned, in clear daylight their subterranean holes in great disorder, many hours before the shocks were felt. Some dogs a few minutes before the first shock took place, awoke their sleeping masters by barking and pulling them as if they wished to warn them of the impending danger, and several persons were thus enabled to save themselves.

A Richmond, Va., dispatch says it is stated on the best authority that there is no foundation for the published reports that the control of the Richmond & Danville Railroad Company is likely to change hands.

NOTICE TO CREDITORS!

The undersigned having qualified as administrator of the estate of Davalt Beaver, dec'd, hereby notifies all pecsons having claims against said estate to present the same for payment before the First Day of October, 1882, and all persons indebted to said estate are requested to make payment immediately to the undersigned, M. A Bost, Adm'r of
Sept. 30, 1881. Davalt Beaver.
51:4w

North Carolina—In Superior Court.

ROWAN COUNTY.—19th Sept., 1881.

Mary E. Daniel *against* Lewis Daniel } Suit for declaring void from the beginning a Marriage Contract.

It appearing from affidavit filed, that the Defendant is a *non*-resident of this State, it is ordered that publication be made in the CAROLINA WATCHMAN for six successive weeks notifying the Defendant, Lewis Daniel, to appear before the Judge of our Superior Court, at a Court to be held for the County of Rowan, at the Court House in Salisbury, on the 9th Monday after the 4th Monday of September, 1881, and answer the complaint which will be deposited in the office of the Clerk of the Superior Court of Rowan County, within the first three days of the term, and that if he fail to answer the complaint during the term, the Plaintiff will apply to the Court for the relief demanded in the complaint.

J. M. HORAH,
Clerk Superior Court Rowan County.
49:6t

Condensed Time Table—N. C. R. R

TRAINS GOING NORTH.

Date May 15, '81	No. 47 Daily	No. 49 Daily	No. 43 Daily
Lv. Charlotte	4 05 A M	6 15 A M	4 15 P M
" A-L Depot			
" " Junc't	4 11 A M	6 20 "	4 30 "
" Salisbury	5 56 A M	7 50 "	6 07 "
Arr. Greensboro	8 03 A M	9 30 "	7 57 "
Lv. Greensboro	8 25 A M	9 50 "	8 18 "
Arr. Raleigh	1 40 P M		for Richmond only
Lv. "	1 45 P M		
Arr. Goldsboro	4 00 P M		
Lv. Greensboro for Richmond	8 25 P M		
Lv. Danville	10 21 A M	11 31 "	
" N. Danville	10 27 A M	11 33 "	
" Barksdale	10 58 A M	12 01 P M	
" Drak's Br'ch	12 37 P M	1 20 "	
" Jetersville	2 24 P M	2 55 "	
Arr. Tomahawk	3 20 P M	3 51 "	
Arr. Belle Isle	4 05 P M	4 28 "	
Lv. "	4 10 P M	4 35 "	
Arr. Manchester	4 13 P M	4 38 "	
Arr. Richmond	4 18 P M	4 43 "	7 28 A M

TRAINS GOING SOUTH

Date May 15, '80	No. 42 Daily	No. 48 Daily	No. 50 Daily
Lv. Richmond	10 45 P M	12 00 M	
" Burkeville	2 55 A M	2 43 P M	
Arr. N. Danville	7 00 "	6 05 "	
Lv. " "	7 25 "	6 18 "	
Danville	7 27 "		
Arr. Greensboro	9 26 "	8 17 "	
Lv. "	9 31 "	8 37 "	
" Salisbury	11 16 "	10 33 "	
Arr A-L Junction	12 45 "	12 15 A M	
" Charlotte	1 00 "	12 20 A M	
Lv. Richmond			2 55 P M
" Jetersville			4 41 "
" Drak's Br'ch			6 07 "
" Barksdale			7 25 "
" Danville			7 51 "
" Benaja			8 55 "
" Greensboro			9 27 "
" Salisbury			11 05 "
Arr. A-L Junction			12 16 "
Lv. " "			"
Arr. Charlotte			12 30 A M

TIME TABLE
WESTERN N. C. Railroad
Takes effect Sunday, July 17, 1881, at 4.15, P. M.

PASSENGER TRAIN.

ARRIVE.	LEAVE.	STATIONS.	ARRIVE.	LEAVE.
	1120 a.m	Salisbury	4 30 a.m	
12 08 a.m		Third Creek	3 34	
12 30		Elmwood	3 08	
12 52		Statesville	2 42	
1 40		Catawba	1 41	
2 28		Newton	12 43	
2 41		Conova	12 28	
3 07		Hickory	11 57 p.m	7 50
3 45		Icard	11 13	
4 23		Morganton	10 29	
4 45		Glenn Alpine	10 02	
5 00		Bridgewater	9 45	
5 41		Marion	8 56	
6 26		Old Fort	8 03	
6 37	7.07 A.M	Henry	7 17	
7 57		Bl'k Mountain	6 27	
8 14		Cooper's	6 07	
8 29		Swananoa	5 49	
8 50		Asheville Ju'ct	5 27	
9 00		Asheville	5 15	
9 45		French Broad		4 15p.m

FREIGHT TRAIN.

ARRIVE.	LEAVE.	STATIONS.	ARRIVE.	LEAVE.
	5 00 A.M.	Salisbury	5 00 P.M.	6 24 A.M
6 00 A.M.		Third Creek	3 47	
6 28		Elmwood	3 15	
6 56		Statesville	2 43	
7 56		Catawba	1 34	
8 56		Newton	12 25	
9 10		Conover	12 09	
9 42		Hickory	11 31 A.M	
10 28	10 40	Icard	10 38	
11 50		Morganton	9 40	
12 32 A.M.		Glen Alpine	9 06	
1 00		Bridewater	8 41	
2 17		Marion	7 42	
3 41		Old Fort	6 13	6 34 A.M.
4 02		Henry	5 59	
5 26		Blk Mountain	5 03	
5 50	5 50 P.M.	Cooper's	4 42	
6 30		Long's	4 23	
6 50 P.M.		Asheville Jn't		4 00 A.M.
		Asheville		
		French Broad		

Trains run daily, Sundays excepted.
A. B. ANDREWS, Gen. Supt.