

ELISEED IN 1878-

HILLSBORO, N. C. THURSDAY, MAY 25, 1899.

MARVELS OF LIQUID AIR. \mathbf{O} Scientific Discovery That May Effect a 0

Revolution in Industrial Methods During the Twentieth Century.

NOVEL AND AMAZING EXPERIMENTS.

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r huary exhibit ever | temperature of 312 degrees below cton was witnessed | zero. The problem has been how to thatel a few nights ago obtain, and subject air to, that degree is curle of the city, of cold. I have discovered that air . I. of the telephone, "great quantities at a low cost,".

as water is ex. floor.

an by heat. By con-

expansion Mr. Tripler For liquidair, as power, Mr. Trip. viously afflicted him disappeared en- the State might be divided into furnal a new motive ler claims that it has about one hun. tirely after the first application of the quarters to make four States. Texas

able railway trains and steamships to By means of the peculiarly construct attain greater speed?"

"I do look for such a result. There public, a portion of the compressed is every reason to believe that, given air is allowed to expland into a tube this greater power than steam, higher surrounding the tube through which speed can be produced." "How would it he used-stored or ernanded air absorbs a large amount made in transit?

"It seems to me to be quite feasible pression in the inner tube. The conto make it in transit not only on tents of the inner tabe are thus cooled. steamers and trains, but also in flying- In this way the air is brought below machines." "You believe that it brings nearer its pressure is very much reduced, so

the day of aerial navigation?"

"Certainly. There is no other bottom of the apparatus, a stream of agency which, with such small weight | liquid air is received, flowing out with and bulk, can produce such motive scarcely more force than the water power as liquid air.

"To what extent has it been used in complished by the 'self-intensificasurgery and medicine?"

"Thus far cancer has been treated sion of a portion of the compressed the Cabinet, Supreme -compressed air-can be so used as with it, and the most gratifying re- and cooled air, without employing any atto Corps and other to produce that degree of cold, and, suits have been obtained. It is too other substance to bring about this It was given under the consequently, to liquely other air; and early to say just what its value is. I result." atomal Geographical | I have invented a machine by which do know that its application to cancer by Professor the liquid product can be made in has stopped the spread of the disease, and in one case the wound has con- Such Will Be the Number in the Census representative for Liquid air is a clear and fluent sub. tracted to a very small one. In anof New York, to stance, which, upon exposure, evap. other case, after a number of applicain public the orates rapidly in a heavy mist. It is tions to a cancer on the breast of a at the time of the census of 1890, when h h has din- so intensely cold that the hand held woman, it fell out into the operator's the enumeration began on June 1, was invarit is speedily chilled. If the hand liand. A number of cases of cancer forty-two; and two Territories, Idaho, stated, Mr. Trip- is plunged into it, the sensation is have been under treatment, and in all admitted on July 3, and Wyoming, adof ordinary air that of burning, and unless it is in. which were in meipiency or had not mitted on July 10, became States while and by com- mediately withdrawn the skin is blis. been rendered incurable by the free the census was in progress. Since reduces it to one tered and seared. When the hand is but vain application of the surgeon's then another State, Utab, was adthat looks like removed, it becomes almost instan- kaile, it has arrested the cancerous mitted in January, 1893, bringing up rees below zero, had alliered incodiately gathers in effect in removing the pain accom- five.

foring from cancer of the nose said Union, in 1845, it was admitted under

dust's format a tems taneously dry, for the liquil which growth. It has, besides, a marked the total to the present number, fortypouris into vapor and bright beals and drop heavily to the panying the disease. A patient suf- When Texas was admitted into the

that the shooting pains which had pre- a provision that, at any future time,

NEW SERIES--VOL. XVIII. NO. 19.

Sorghum as Green Feed. Select a good piece of land, not too rich, as it will lodge badiy on a very fertile soil. Break as early as possible, inteferably sod, and as soon as all danger of frost is over. Prepare thorbughly by harrowing and dragging or rolling, but never rebreak. Then have the seed perfectly clean. I prefer the red top variet of sorghum. For seed. ing I use an ordinary eight or nine hoe wheat drill, and stop up all the hoes except the second one from the outside on each end. Set the drill to sow about one-half bushel of wheat per acre. You may think the crop will be tion of cold' produced by the expantoo thin, but if your seed is good, time. will prove that it is all right. Commence ou one side and drill back and forth, as id sowing wheat, except that the wheel must run about ten inches from the other wheel track, instead of in the last hoe track, as in sowing wheat. I prefer sowing east and west, as the crop shades the ground

and keeps it moist. Cultivate the same as corn, keeping down all weeds and grass while it is small. Commence feeding as soon as it is in bloom and feed as long as it lasts. Cat it close to the ground and feed it either as it leaves the field or you take it to the barn, don't lay it Tribune.

it sore. When there is danger of __Cleveland Plain Dealer.

THE BEST OF ALL.

etvet

Had I my wish, no powerful throne, In truth, would I occupy; Nor wealth possess, nor title own, Nor travel at will-not I. boy I'd be, whose treasures are In the guise of ball and kite: Whose rambles by day may take him far, But back to his mother at night.

A boy, with a long, long look ahead, And a past so short and near That at night, while drowsy-eyed in bed All he has done is clear. The brook he waded, the fish he caught, The fun in the wind and cold-With a morrow at hand which surely ought Fresh pleasures in store to hold.

Bo short a past, that the rosy hours Quite blot from the sight the gray, And the foture is only a mass of flowers Growing from day to day. While the world of the present has wonders

more Than eyes have time to see. With creek and meadow and wood to explore,

And cities beyond the lea.

"Tis reserved for a lad of ten, indeed, To encounter lion and pard. And Indian's fight, and rescues lead, In the depths of his own back yard. With many another source of joy No older head may ken-

I'm certain it's better to be a boy

Than even the greatest of men.

-Edwin L. Sabin, in Youth's Companion.

HUMOR OF THE DAY.

Customer (in hardware store)-"Do you sell the golden rule?" Clerk-"We don't even keep it."

Manufacturer's Agent-"Is the cut into two-inch lengths and feed in head-buyer upstairs?" Accommodating that condition. Cut each day only Employe-"No; he's out. But the what you want to feed that day; and if sub-seller is downstairs."-Chicago

down, but set it up, as otherwise it "I see there's a new telegraph syswill heat rapidly. If you cut it shorter tem that will transmit 4000 words G than two inches the stalks will get minute." "Say, I'd like to have my crosswise in the cow's mouth and make wife dictate to it for a minute or two."

100 pontels a square incl. I wenty pounds of pressure. Steam save a life. But, of course, I am not Illinois of 56,000. These six States, t curvingent pipe the press pressure is not obtained until water a physician or a surgeon, and it is not therefore, have, collectively, less area cont that there is now no has been heated to a temperature of In other words, a pint or a ditional degree of heat produces only use in medicine and surgery is now Representative Bridges to the effect a gallon of this liquid will one pound of pressure. He asserts, under careful study by physicians. I that the people of Texas declared y versel in which it may be moreover, that liquid air can be apnubes there is an opportunity plied as a substitute for steam to any appears to be an irresistible germi- to a division of the State, was adopted, Figul ecape.

manufactured by ap- boiler by the smaller and lighter re- can be so applied as safely to reach tion for a division of Texas. Mr., Tripler has in- ceptacle holding the air. Its general the lungs and destroy the bacilli of first gallon or two is adoption, therefore, as motive power tuberculosis. Indeed, the physicians Congress looking to the admission of of coal or any other would not mean the discarding of ex- have succeeded in applying it to parts the Territories of New Mexico, Arist as ice is made in a pensive engines now used. Hence, of the body where I thought it could zons or Oklahoma, or to the extension and the reafter he is able to the first cost of its adoption would be not be applied, and, therefore it of political rights to Alaska or the gallons of the fluid by slight, and with its vastly greater seems a distinct probability that District of Columbia; and hence (exuditure of two. A reilway potentiality, it must (he claims) super- means will be devised by which dis- cluding Indian Territory under tribal steamship will these- sede steam, if it can be made cheaply lease germs, wherever they may be in own power from the enough.

"c as it passes along its way, For that Mr. Tripler provides by his killed. engineer will simply application of liquid air to the manuthe second of its production, lit to an engine as a substitute for summer." to apply it to prac-steam, operated the engine thereby, and used the power thus obtained as

brought six gallous of the had used the steam-power. him from New York, 1 by used if as a haramer to wrong end of the proposition, and do been left open. district steel in about.

that were not only novel quantity

contrary. In the first success, produced tex?" convenue only a few drops of "I have done that very thang," re- Professor W. C. Peckham, of and ago the Drotsh scientist. and ames Dewar, doministrates and darks that he has produced "quantities"" the reporter asked. and house air at a cost of about "If I had not achieved the abolition "It the plant consists of a triple-air

a real and on land, for steam; that expansion immediately be- have some special value as a local miles. New York has an area of 47,as not for every other gus under the influence of the pre- anasthetic. It appears certain that 000 square miles, Pennsylvania of abla able lectricity valling temperature, and that every gangrene can be arrested long enough 45,000, Massachusetts of 8000, Ohio The expansive force is additional degree of heat applied vields for amputations to be made that will of 40,000, Kentucky of 40,000 and ent strength to re- 212 degrees Fahrenheit, and each ad- which have chiefly interested me. Its offered in the Austin Legislature by engine, with substantially no further cide, and that I think I have inci- and there is an end, till after the next

the human body, can be reached and

y of a ventilation pipe, facture of larger quantities of liquid purposes, that is as wide as the need are used and manufacture air. He asserts that he has accome of refrigeration is. Ice can be made his energy can be used with used steam as the power requisite in refrigerators; it will be useful in littlenity and at a cost seventy the process of making liquid air; that packing-houses, in markets, in hosin than steam, and, having he took liquid air thus made, applied pitals, and in hotels and houses in

Mr. Tripler referred to Hudson Maxim, the brother of Hiram Maxim, could performed the ex-derstood. I don't claim to create en- ports which he had heard of the pos-

se of transportation dred the times the expansive force of air. It is quite possible that it may contains an area of 260,000 square the curative properties of liquid air than Texas. Recently a resolution may add in this line that liquid air themselves to be unalterably opposed change than the displacement of the dentally discovered means by which it national census at least, to the agita-No action was taken by the last

ed valve, whose details are not made

the remaining air is flowing. This

of heat from the air still meder cota-

the temperature of liquefaction and

that, upon opening the valve at the

from our ordinary city service pipes.

Thus the liquefaction of the air is ac-

FIFTY STATES AND TERRITORIES.

of Next Year.

The number of States in the Union

government and not included in the regular June enumeration) there will one of its valuable constituents which

"As for its use for refrigerating Territories to be counted, or fifty States and Territories in all.

in ground fish, ground fish, ground fish, ground bone, tankage, Between 1880 and 1890 there were six cottonseed meal, sulphate of ammonia, States admitted, and one has been admitted since.

A Light on Yankee Dialect.

Obvious necessity compels even the "I find in this matter," he said, who had been present in the labora- most patriotic of Englishmen to adpresence of four or five "that I have been generally misun- fory a few days before, drawn by re- mit that vast numbers of their fellowcountrymen use dialects so far reand are described in Me. ergy, to make something out of noth. sublities of liquid air as an explosive. | moved from correct English as to be He dipped the ing, to upset any of the laws of nature. Mr. Maxim had been told that a small little less than separate languages, but of can with an ordinary 1 do say, though, that the scientists quantity of cotion waste saturated few, if any, of them can let pass withnot as a milkman would have been wrong in some of their with liquid air had been placed in a out protest the statement so often He dropped a pointo in it, notions, and that they will have to small iron pine, which had then been made by Americaus that this or that of in two or three minutes change them. I assert that by the encased in a larger pine, as protection well-educated Londoner "talks with a on the floor, where it use of a five quantity of liquid air. from the possible effects of the explo- an English accent." The assertion is, a thousand little crysta's, substituted for steam power, I can sion, and that by means of a long fuse indeed, a bit absurd, for the pronunubber ball, immersed it in maketand derve made, larger quanti- the waste had been touched with fire; ciation of such men is, or ought to be, then broke if as if it ties of liquid air. I use over and over he had been shown the fragments of the standard of the language, and not a drouged in a piece of again the legal air employed in the the inner pipe and two great holes its peculiarities, but variations from a moment it was making. It seems simple enough to which had been blown through the them are what constitute "accent," little dragments that the, and the principle is so simple that outer one. Mr. Maxim desired to see according to logical and reasonable triffed wood. He right to make to have been grasped by any precisely the quantity of cotton waste definitions of that word. But though of alcohol, and it a scientific initial at once, but, to my which had, been used, and to know the stay at home Britishers still devas frozen into a block surprise, it has not, what my critics wirether the ends of the pipes had ride or denounce our application of lifed a pasteloard flow say appears plausible, but in fact their been closed. The merest paim-full of a qualifying adjective to their English, v, which when immersed contentions are all aside from the waste had been exhibited, and the those of them, who stray abroad are ad air became as hard as mark, for they have got hold of the ends of both pipes, he was told, had coming to treat the speech of New

"If the table. He numerical not comprehend at all what I am ["There is no explosive in use," Mr. non-existent ideal. At any rate, they best, although even those which are Maxim declared energetically, "which, talk as glibly as we do of "American killed by autumnal frosts will before they crucible | 11 They, whatever the modus oper. in such small quantity and with so secents" and "English accents" and their death have taken a considerable is demonstrated the ex- and may be, you do distinctly claim little continement, could have pro- one citizen of comparatively recent share of this soluble nitrogen out of wet of the liquid to a similar that by the use of any given quantity duced anything like this effect." His adoption was heard the other day to the soil. It will have become a part and all other performed exploit highed air you out make a larger interest was so much aroused that he date an experience of his to a time of the vegetable tissue. In such form at once made an appointment with | "when I spoke with a much stronger | it is not soluble and will not be sub-"I positively and absolutely make Mr. Tripler for a business interview accent than I do now." By so doing ject to waste until this vegetable tison the use of liquid air in combina. he gave, probably, the ultimate proof sue rots, as it will do with the advance January. In the duration of its bloom of thorough assimilation with us. The of the warmer weather of the follow same man said that recently, having ing season. It should be the aim of met a person who inserted an "a" in the farmer to leave his fields bare just words like "cow" and "town," i.e as little as possible. Keep the fields asked said person if he wasn't a fel- covered, keep the soil filled with feedlow-Briton from Staffordshire. The ing rootlets of growing plants. These reply was, "No. I was born in Ver. hungry rootlets will take up nitrogen mont"-which throws several interest- | which would otherwise be lost. ing lights on "Yankee dialect,"-

frost, cut and shock the same as corn, and you can feed it until Christmas. I don't think it a good plan to feed after that time, as the stalks have generally begun to sour.

I feed it to hogs, horses and cattle, and all get fat. There is nothing better than a field of sorghum to help out pastures in the fall until you want to put your stock into winter quarters. The seed makes one of the very best feeds for poultry. I have been raising it for a number of years, and I belet your cattle get to it, as it has been the American Agriculturist.

Green Maunring and Nitrogen.

The nitrogen of the soil is the only be forty-five American States and five is subject to serious loss by natural agencies. Whatever the form in which Yet quickly comes the reckoning day nitrogen is applied to the soil, whether Between 1870 and 1880 one State, in farm-yard manure, in dried blood, or nitrate of soda, it sooner or later is so changed by natural agencies as to become soluble and in this form the soil cannot hold it. With heavy rains to the ocean.

None of the other valuable elements him again."-Harper's Bazar. of plant food are subject to this loss by leaching to anywhere near the same extent. This loss of nitrogen can be prevented in a large measure by the growth of green manuring crops. The agencies of nature which convert nitrogen into the soluble form are most active during the later summer months. At the close of summer there is commonly present in all fertile soils a large quantity of nitrogen in soluble form. If the field be left bare during the autumn, winter and early spring this soluble nitrogen will be washed out of the soil. The only practical method of preventing this is to cover the field with a growing crop.

For this purpose those crops which York and of London as variants of a | grow late into the fall will be found will be locked up in vegetable tissues and safely kept to meet the demands of the growing crop of the next season. Green manuring, then, may be made an important means of saving or conserving soil nitrogen.-Prof. W. P. Brown, in Asange Judd Farmer.

"They say Cholly's father is greatly disappointed in him." "Yes; but he expected too much. He thought Cholly might be able some day to caru his board and clothes."-Puck.

"I hear that you assisted at the post-mortem examination of your old enemy," said Gaswell to a surgeon of his acquaintance. "Yes; I cut him dead." - Pittsburg Chronicle-Telegraph.

Rivers-"Harkins carries politeness lieve I can get as much feed from one to an extreme. I returned his umacre of sorghum as I can from two brella to him a little while ago, and he acres of the best corn. Where you thanked me." Brooks-"That doesn't first commence cutting your cane it surprise me. The wonder is that he will spront up very rapidly, but don't didn't drop dead."-Chicago Tribune. Visitor - "And your daughter known to kill them. - J. W. Smith, in painted this beautiful picture?" 'Mrs. Upstart- "My daughter paint it? No, indeed! Her teacher did the work. Considering what we pay him for lessons, it was the least he could do."

You owe a bill you cannot pay! You do. For you. Your creditor will sell you out, The news will soon be all about, Those now your friends will jeer and flout, And sue Tis true.

Principal-"Well, did you get that money owing by Lewis?" Collector-"I am sorry to say I did not. There it is dissolved in the downward sink- are a number of Lewises at that ading water, and with it is carried ulti- dress, all of whom denied being your mately into the streams and rivers and creditor. One of them threw me ont." Principal-"That's the one. Call on

Hicks-"They tell me that Hinson's wife consulted a clairvoyant the other day, and she says the woman's powers of seeing into past and future are truly wonderful." Wicks-"Yes; she told Hinson's wife that she was thirty-two, and everybody knows that Mrs. Hinson will never see forty again."-Boston Transcript.

"I have called, Mr Billiwinks, to tell you I love your daughter, Miss Fanny, and I want to marry her." "Well, it will not take me long to answer you, Mr. Harkalong. You can't have her." "Your refusal pains me deeply. By the way, Mr. Billiwink, are you carrying all the life insurance you want?"-Chicago Tribune.

"A Frost Flower.

Mr. John Bookwalter, who has recently returned from a year and a half's travel in Asia, tells of a remarkable flower that grows in Siberia. They will grow, it seems, in the coldest climate from frozen earth, and bear the flower resembles somewhat our convulus, each blossom lasting but a day. The flower is star-shaped when it opens, its petals of the same length as the leaves, and about half an inch wide. The anthers, which are five in number, at the third or fourth day show at their extremities minute glistening specks which shine like diamonds. They are about a sixteenth of an inch in diameter. These are the seeds. The name is an unpronounceable Russian word. -- Cincinnati Enquirer.

pird a manifip so at practically in steam?"

"It is a fact of science," said Mr. be vasily more efficient."

achievements of the fast three gallons of leguid air you have Maxim had invented.

the thifte produced in quantity. Intrivizing agency in modern indus- on the subject in the Scientific Amerithe left of produced in quality further tog and life depend upon the preductions. In the latter journal he has given ing tights on New York Times. and couling about 35000. Mr. trop of miger quantities from given this description of the plant and pro-

by during a mallow. He further of steam in the mutufacture of is and compresser, a cooler and a liquefier.

"Tost claim also that by the use of thon with an explosive which Mr.

thannel, but six of plied Mr. Tripler with emphasis, Adelphi Institute, Brooklyn, from whose pen an article on liquid air ap-"I years its success as a great revo- pears in the Century, has also written cess of Mr. Tripler.

Inglier, "that air liquefies at a "Do you expect that its use will en- tutes Mr. Tripler's special invention. pression upon him.

Euskin as a Patriarch.

In an account given by a distinwhile that it pull air can be used to nor I should have accomplished noth. The compresser is of the ordinary guished man of letters of a recent visit and here is larger quantities - rog. That is, although liquid air form, having three pumps upon one to Mr. Ruskin, this gentlemap de-What to him actually obtained ten gill might still be of use in some special piston shaft working in a line. The scribes Mr. Ruskin's appearance as application-as, for instance, in sur- first gives sixty pounds pressure; the singularly ennobled by the long, to holds that there is no reason to gery and medicine -it could not be second raises this to 750 pounds, snow-white beard, which descends that this process can be re come the surreme and universal pow- while the third brings the air under a nearly to the waist, and give a by the Russian Government and made is stelland dimitely, and that, there- er-produces which i expect it to be." compression of 2000 pounds per square patriarchal dignity to the finely a crime. In some cases the noses of After each compression the air flows Mr. Ruskin in a mood of perfect under Amwath IV., about 1630, the this new invention the casket is in and stress have punishment for smoking was death. brought from the hearse and placed on Mr. Triplet also expresses trains, for the propulsion of ships and cooled by eity water. For this work departed, and all that is left is pure Beginners were sometimes let off with the device, which is automatic in its about forthe commercial and for the operation of machinery in gen- about forty horse power is employed. sweetness and gentleness. His favor- the indignity of having their pipes operation, and at the proper time the control applications of liquid air are oral. As a mative-power its advan- After the third compression the air ite occupation is sitting at his window connertained is the portant that it tages over steam are great. It will flows through an apparatus which dis- looking on the calm waters of the lake and alle t no small revolution in cost far less, it will save bulk and poses of some of its impurities, and it below. Hereceives great numbers of weight of point and apparatus, it will passes on to the liquefier. It is this letters, but the present day affairs of States are six-pointe part of the apparatus which consti- this troubled world mak- little in , dag have five points.

When Smoking Was a Crime.

early part of the seventeenth century thoust through their noses.

Science Crowds Out Pallbearers.

The latest novelty in the line of Smoking was condemned in the funeral equipments has just been introduced into Portland. It is in the nature of a casket-lowering device which does away with the pallbearers molded face. The end of life finds smokers were cut off. In Turkey, lowering the body into the grave, By undertaker touches a spring and the casket is, by invisible means, lowered Stars on the coins of the United quietly into the grave. Thus does Those on the science smooth our passage to the cold and silent tomb. -Portland Oregonian.