# PRACTICAL USES OF WEATHER FORECASTS

#### Save Merchant and Stockman From Losses.

Washington.-One product of the government which is gaining increasing use in the commercial world is the weather forecast. Everyone is familiar with the laconic centences which appear in all newspapers forecasting the weather for the following day. These forecasts, by the way, now have reached a mark of more than 50 per cent accuracy. In earlier days of meteorology the weather man's predictions used to be laughed at, but in nearly nine cases out of ten nowadays he is right. The brief daily notices represent by no means the full product of the United States weather bureau. It makes many other calcula-flors on weather subjects which are available to anyone upon application

When one speaks of weather in most parts of the United States, the Idea of rain is probably the first mental reaction. To show how this idea has been commercialized one may read the experience of a large umbrelia He had been in the habit of ordering large consignments of umbrellas from the manufacturers in the autumn because he was under the general impression that more rain was noticeable at that season.

Then it occurred to him to approach the matter scientifically and he got in touch with the weather bureau. He was furnished with charts showing the usual distribution of precipitation in his part of the country. After studying these, he worked out a chart which proved an efficient guide to the amount of rain which would fail in the various months of the year. On the besis of this chart be placed orders for unibrellas to be delivered month by month in quantities proportionate to the expected rainfall. The system worked perfectly. He was hever overstocked and never sold entirely out, When to Buy Lambs.

A western sheep reiser fernishes another interesting example. He had suflosses by purchasing young lambs and having them killed by miverse weather conditions. After studying weather charts extending over long periods, he was able to make a calculation showing the earliest date in the spring at which it would be safe to buy tambs. There was only about a week's difference in his time of purchase under the new system, but it turned his lesses into profits.

Architects and builders, especially in regions where snew falls, are more and more consulting weather charts as a guide to the construction of roofs. Snow is very heavy. The whole nation remembers how the roof of the Knickerbocker theater in Wushington collapsed two years ago after an unusually beary snowstorm, killing scores of people. By consulting the weather charts the architect can determine what stresses the roof planning will be subjected to. He then plans to take care of the maximum load, leaving in addition a coefficient of safety.

The weight of snow resulted in a curious dispute to the West some time A flock of sheep was perchased on the basis of so much a pound. The sheep were run onto scales out of doors and welched. Upon delivery the buyer found that the sheep were very much underweight. He had paid for several foundred counds more than he received and put in a claim for the missing sheep. Investigation developed that when the shoep were weighed a heavy snow was falling and each sheep carried a coverlet of snow. The pur chaser had bought both sheep and snow by the pound. Of course, the snow was gone when the sheep were

Evidence In a Lawsuit.

An important lawsuft is pending in er bareau is furnishing material evidence. A mining company opened up a subterranean stream of water and, as water is valuable in that arid section, immediately made use of it. A regular surface stream nearby simultaneously diminished its flow.

Irrigation projects to the vicinity and power companies set up a claim that the mining company had Illegally diverted the water from the surface stream by tapping its andeground sources. The mining company is seeking to show by weather record that the diminution of the flow of the surface stream was due to a long continued spell of dry weather.

How the weather records can be used in personal matters is revealed in the case of a brand-new limousine which was overturned on an open It was insured and a claim was entered on the ground that the machine had been overturned and wrecked by the wind in the course of a storm. The weather records were consulted by the insurance company it was shown that the highest wind pressure in the state was but one-balf the pressure against the side of the car that it was admitted to have carried on its tires. Bad driving and not the wind, it was shown, caused the damage.

Almost innumerable cases of practi-

cal use of weather records are on file with the weather bureau and it is expected that increasingly frequent use will be made of the bureau as the commercial world learns the value of the data available.

# Bar Face Powder

Billsdale, Mich.-The All Face and No Powder club has been formed by high school girls of Jonesville, Powderpuffs and lipsticks are tabooed by

#### TAHITI FARMERS ARE **ENRICHED BY BEANS**

#### Kanakas Live High as Price of Vanilla Soars.

Papeete, Tubiti.-A great demand has arisen in these western islands for bleyeles and motor cars, although the roads are mere tracks.

The Chinese in Papeete have endeavored to satisfy the demand by combing all the old junk heaps for an cient bicycles and antique "tin lizzies." A little tinkering and a few coats of paint, and the rejuvenated contrivances are ready to be excluded for quantities of vanilla for in excess of the value proffered.

This is one of the consequences of the visitation at Papeate of "vanilla millionaires" from the Leeward group of the Society Islands. These Islands escaped the plant disease that devantated the plantations of Tabiti some years ago. 'Chus, when the price of vanilla beans soared recently to great heights, these islanders had full crops, for which they received sums beyond their wildest dreams. Papeete being the Paris of the South seas, there no ly-risen nabebs have been flocking here to spend their gains.

The roads in and about the city have become peritous from divvers, chartered by the week, loaded with fat Kanakas, who rush about at high speed, to the consternation of pedestrians. Their women folk are aston-ishing the beach dwellers with glowlug silks, high-heefed shoes and picture hats.

This orgy of spending will continue until the last tranc is gone. Then the natives will return happily to the peaceful shores of Ralatea and Bora Hera and resume their old pursuits of climbing the mountains for "fel" and combing the reefs for fish. But, having had a whale of a time, they will be content.

#### Daughter of Rasputin Makes a Visit to Paris



Maria Gregorievne, claiming to be the daughter of Resoutin, the famous evil genius of the late czarina of Russia, arrived in Paris recently after many tribulations and adventures. She chilms to be one of the five legitimate children of the notorious monk. She claims to have lived with her father in Petrograd, and each week he took ber to see the exaring. She also tells of the terrible ordenis after Rasputin's death, when she was imprisoned with her brothers and sisters, and eventually sent to Siberia, from where she some engagement on the stage, as she is a very talented girl and a good same costume which she were while the knowledge of the sunjects. She is shown wearing the she lived with her father, and with which she arrived in Paris.

# Many Old People

total population of around 1,206, has tubing to the kymographion placed in more than forty residents more than seventy-five years old, the oldest being ninety-three years of age. It is claimed the percentage of septuagenarians in Halstend is larger than any town in the state.

### Find House Built of

Mud 200 Years Ago Philadelphia.-After weathering the sunshine and storms of perhaps two centuries, a twostory house, built of mud from foundation to roof, has been discovered by a building inspector and condemned.

Close examination of the unique structure, which stands at 322 Buttonwood street, revealed that builders of 200 years ago used the same methods of pouring mud into wooden molds as is used today in the construction of modern concrete build-

To the generations of men, women and children that have passed it, the house has stood as a landmark, but not one of noteworthy history. A week ago it was to the passing citizenry only a house on a street, "that's been there for many years.

# HIGH TEMPERATURE EFFECT ON THE BODY

## \* Man Cannot Endure More Than 90 Degrees F.

Washington.-That the haman body, in a state of rest and in still air, cannot endure indefinitely a temperature higher than 90 decrees Fahrenheit with 100 per cent relative hamidity, has been determined by Department of Interior investigators at the Pittsburgh experiment station of the buread of mines, co-operating with the American Society of Heating and Ventilating Engineers. In the course of the tests it was noted that the heavier and stouter men in the experiments, when subjected to uncomfortably hot temperatures, lost more weight than the lighter and thinner men, but as a rule could endure such temperatures less of the exhaustion which followed.

Loss of weight in the subjects experlmented with gradually increased with an increase in atmospheric temperature. Whenever the subject drank water he immediately gained in weight, and in all cases the subject, within 24 hours, usually regained the entire weight lost. Subjects who drama ice water freely after exposure to high temperatures felt no ill effects, tending to disprove the assumption that such action develops severe CERTIFIES.

It was found that the exhaustion and weakness following subjection of human beings to a very high temperature and humidity for a short period is not so severe as subjection to a derately high temperature and humidity for a longer period, Take Puise Rate.

The pulse rate, rather than the rise in body temperature, apparently de-termines the extent of the discomfort experienced by the subject. Subjects became very uncomfortable after the pulse rate exceeded 135 pelsations per minute, and complained of unbearable and distressing symptoms when the pulse exceeded 160 per minute. highest pulse rate recorded was 184 per minute. Subjection to high temperatures and humidities produced no marked change in the respiratory

The health, comfort and efficiency of men engaged in the naming indus-try may be impaired, in some instances very seriously, by abnormal physical conditions of mine air or by variations in its composition. This is true in some of the metal mines of the West, where high temperatures with varying humidities are encountered. Physiological studies have been made by the bureau of mines in some of the mines showing the effects of various temperatures and hamidities.

As it is difficult to carry out studies on many controlled temperatures, it was thought best to make the present experiments in a inberatory apply the results to the mining ladustry in so far as practicable.

The experiments were conducted in two fully equipped chambers, in-sulated by cork board, designed to maintain air conditions at a desired temperature and humidity. The temperature, humidity and air motion of each room may be controlled independently of each other. The air conditions are controlled by apparatus ontside of the chambers and entirely separated from them. Instruments for observing the body and surface temperatures of the subject, also for recording the rate of respiration and of the heart pulsations, and the apparatus for basal metabolism work are located in an adjoining room.

Record Temperatures. The oral temperature of each subject was registered by the one-minute elinical thermometer, while the surface temperatures were recorded by means of thermo-couples in contact with the body and connected to a po-tentiometer in an adjacent room by means of flexible wires. Surface temperature readings were taken without

In addition to counting the rate of respiration by an observer, the rate was also recorded at intervals unknown to the subject by means of an infinted tube strapped around the Hatchinson, Kans,-Helstead, with chest and connected by long rubber the room adjoining the chamber. The wave lengths were traced on smoked paper encircling the drum of the instrument.

While irrelevant to the present study, an attempt was made to determine the cause of the inflammation of the eyes, of which workers in the industries so frequently complain. On a day when the eyes were normal a small quantity of sweat, which had been collected duting an experiment, was dropped in the eye. junctiva almost immediately became inflamed and the eye felt sore. The sweat collected from the face seemed. less irritating to the eye than that collected either from the chest or arms. Sweatbands were then applied to the forehead during the experiments, these preventing the sweat from falling into the eyes and also preventing the Inflammation. This proves sufficiently that sweat is the chief factor in producing the conjunctivitie which unpanies exposure to heat, the inventigators say.

Jap Wages 78 Cents Daily Tokyo .- The average dally wage of Japanese laborers, including women, is 1.55 yen-ut normal exchange about 78 cents in American currency-according to figures published by the home department. The average wage for male laborers is 1.79 yen and for women 88 yen, and the average workday is ten hours, twenty-six minutes.

#### SAYS TUT-ANKH-AMEN WAS REALTY SHARK

#### Overcharged Abraham for St Louis World's Fair to Be Land for Wife's Tomb.

Washington.-King Tut-Ankh-Amen was a real estate speculator and Abra- even a definite year, has been fixed have was forced to pay forty times what had was worth in order to obtain a burying place for his wife. Prof. D. D. Luckenbill of the University of Chicago told the national us-

sociation of reaf estate boards here. "Abeient Babyloulan and Egyptian civilizations endured just us long as toon of this committee is Cate Sells the common man owned real estate," Doctor Lackenbill said. "In the kiden affairs during the administra-Persian period the taxes rose so high tion of Woodrow Wilson. that the small landholder was compelled to borrow yearly from the mittee in Austin, at which a tembanker to meet his tax bill and put porary organization was effected, it in a new crop. Soon we find them was generally agreed that the exposi-seasing then farms to the banking tion should be held within three years. for a longer period and complained firms for sixty-six-year periods: in After the meeting leading daily newsother words, they gave up the strug- longers of the state exhibited for more gle. The story is the same for an embushasm than formerly over the cient Egypt, ancient Creece and an project and some of them have de-cient Rome. It may be the same for claved in favor of raising \$30,000, the United States.

written on clay tablets in tiny rows of wedge-shaped characters in a time that antedated King Tut's reign as much as he antedates the modern be lavited to participate.

ons overcharged because he was in a

"From a study of hundreds of an-cient real estate transactions I am able to tell you," he said, "that Abranam paid from forty to lifty times ich as the field was worth.

"King Tut probably kept a thrifty te open for bargains in choice subur an lets overlooking the Nile, pegoflored mlacty-nine-year or longer leases on something besides his commissions, and drew plats for new subdivisions with 'quality homes at Facebrate prices.'"

#### Swamp Snake Found Far From Its Native Habitat

Columbia S. C .- A party of students, headed by Prof. J. D. Corring-ton of the University of South Caroion, while searching weeds and ponds car here, made what is believed to a scientific discovery of importance. An adolescent specimen of the black Thup shake, known as "seminatrix vgea," bliberto reported only le Florida, was found.

The question that will interest all blologists is how the species comes to be found in a locality 300 miles porth of its established northernmost range, Professor Corrington asserted "That accidental one is out of the question, as these snakes are of a very stationary and retiring nature.

"The only explanation which the facts will admit is that the snake has been overlooked in the intervening territory of Florida, Georgia and the remninder of South Carolina, Further close search should reveal additional specimens."

# Game Wardens Face 78

Anchorage, Alaska. Frank Dufresne, fur warden at Nome, and his trail assistant, Fay Delezene, a noved northern dog musher, encountered some of the coldest weather known in the territory during a trip last winter to the north of the Arctic circle. For ten days at one stretch the mercury registered from 42 to 78 degrees below zero, according to Du-

fresne. "An interesting fact," said Dufresne, It is believed the "is that when the thermometer regisdegrees below or colder, animal life ceases to move and burrows into the snow, remaining there until the weather warms up.

#### Loneliness Kills Bees Ants and Other Bugs

Heideiberg, Germany.-Loneliness will kill bees and other insects quicker than bad food, says Prof. Wilhelm Goetsch, a German entomologist, who passed several years studying the babits of all kinds of bugs. bee must have companionship will die within five days, Professor Goetsch declares, no matter how much honey he may have on hand as food or regardless of how pleasant his surroundings are generally.

Deprive an ant of work and his friends and he also will soon begin to mope and in a day or two he will curl up and pass away very comfortably indeed, leaving the impression behind that he did so intentionally.

#### \*\*\*\*\*\*\*\*\* Sees "Pearly Gates"; Struck Down by Sight

Hoquiam, Wash.-Reports that an intoxicated man was lying in the street a few blocks from police headquarters sent policemen burrying to the scene late at night, but the man, Ernest Deoer told the officers he had Just started home from an evangelist meeting when he saw the pearly gates of heaven opening in the sky and was struck down by the sight. He was perfectly sober, the policemen reported.

#### GREAT EXPOSITION IS PLANNED FOR TEXAS

# Outdone, Is Hope.

Bowie, Tex.-Wolle no date, nor for the event, prebminaries for holdbe a centennial exposition in Texas have been completed. A committee of 100 citizens uving in many sections of the state has been chosen to direct development of the scores of contributory enterprises. The chair of Dallas, who was commissioner of

At a recent meeting of the com-000 to \$35,000 000 to carry it out. That "Mortgages and rent are as old as the exposition should be on a larger the oldest form of records. They were scale than the Louisiana Purchase exposition at St Lovis is generally agreed among representative men, also that all nations of the world should

After quoting from Cenesis the peron that relates to the death of Ico in 1836 has so engaged and enurah, Abraham's wife, and Ahra- grossed the people of the Lone Star tion's purchase, for 400 pieces of state. The state's claimed 255,780 silver, of a burying place for her, square miles—its very bigness—as Doctor Luckenbill said that Abraham well as the richness and variety of its resources impel the committee of 160 to attempt something big.

#### Rose Named for Wife of President Wins Honors



The Mrs. Calvin Coolidge rose is the name of the flowers held by the young lady in the picture. They were exhibited at the annual show of the American Iris society. Mrs. Coolidge has ordered some of the plants set out in the White House gardens, Mrs. F. M. Pierson of Tarrytown, N. Y., 18 Below on Alaska Trip the originator of the species.

## Sells Napoleon's Flags in Tiny Bits to Tourists

Paris,-A watchman employed in the Invalides was recently arrested, charged with elipping bits off of Napoleon's battle flags draped over the emperor's tomb and selling them as vatchman entirely disposed of two battle flags, cuiting off a tiny square of the faded, blood stained, shell-tartered bunning every time a tourist was willing to pay a sufficient price.

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#### Playful Fireball Rips Roads, Trees

London .-- A fireball played havoe in Stansted, Essex, when ir struck the bottom of a tree trunk and started on a tour of destruction, according to the Stansted correspondent of the Daily Chronicle, who was harled from his automobile by an explasion the fireball enused

Here is what happened; It tore away the trunk of a tree near its basis, without damaging the upper branches,

Came up again under the roadway with an explosion several yards away, tearing a large crater in the ground.

Cut through a gas main, which burned afterwards for two hours. Knocked a motorcyclist off his machine. Smothered with dirt and stone,

Rowland Norman of Walpole farm, who was getting in his eqtomobile.

Traveled along a line of barbed-wire fence for 40 yards, wrecking a wooden fence and blowing up portions of the ground

Tore away a corner of a house Broke many windows in neigh horing houses by its numerous explosions, and finally relied back near where it first appeared and sank in the ground,

# ORE SMUGGLING IS VIRTUALLY STOPPED

# Buyers Must Try to Learn Source of Metal.

Denver .- The game of "highgradwhich has been an annotance so the mining of precious metals throughout the world, has been clytoally stopped in Colorado maing camps during the tast time years as a result of the efforts of special agents working under the direction of the secretary of state in enforcing the Ore Buyers' act passed by the Colorado assembly in 1915.

The term "highgrading" came from the practice originating in the theft and sale of high-grade metal ores by pilcers and the subsequent conversion of the cres into gold and aliver bul-lion for sale to the United States mines. Colorado mine owners had tried in every conceleable way to put a step to the practice, but apparently without success, seconding to their reports to the nutbertiles,

#### Change Rooms Installed.

Some mines operating with extremely valuable veins installed "change rooms where working were required to change clothing on entering and leaving the mine, but even this scheme was suid not to have been entirely effective as the certain small percentage of dishonest miners managed to find some way to smuggle ore outside.

The Ore Boyers' act, passed after a bitter struggle between the Mine Owners' association and alleged "highgrading" interests, provides that buyers of precions metals must be IIthe state and must post bond of \$5.000 for the faithful observance of the act. The law requires such a buyer to make a diligent effort to learn where the vendor acquired his ore and with what authority he to selling it

#### Penalty for Falsifying.

Giving false information to a buyer is made a punishable effense. In this way the special agents have been able to cheek the activities of unauthor-ized sellers. The virtual bottling unof the illicit market is said to have had the effect of stopping almost on-tirely the surreptitious removal of ore. Since the law was adopted the num-her of itemsed are layers in the state

has decreased from 32 to 7.

Definite enforcement of the statute dates from 1917, when eight of twelve alleged "highgraders" were given prison seniences of two years each. At the triel more than a score of miners testified that they had sold eres to the accused men.

The successful operation of the Colorado law has brought about the passage of sheller laws in other west-

# Broke in Argentina,

# He Scrubs Way Home

New York.- Benjamin D. Short, Jolly 220-pounder, his palms calloused from massaging the decks of a liner during its voyage from Eucros Aires, smiled Jovially as he helped lower the gangplank on which his wife, Mrs. Alice K. Short, and other passengers debarked here.

"The long and short of it is," said Mr. Short anable to repress a smile, "that the Shorts were short of cash, so I came up as one of the craw and Mrs. Short are her way up. I'm not afruid of work and besides, I was-was-too fut."

Mr. Short is an employee of the Buenos Aires office of the Standard Oil company and returned there only a few mouths ago after a visit to his parents in St. Louis, which took most of his space each. Soon after his return his mother and futher died-within a month of each other-and he had to return to settle their estate

Although he cabled his attorney in sonvenirs to tenrists at \$10 a piece. St. Louis for a \$1.680 advance he was told be would have to appear pers ally to collect, so he became an ablebodled senican.

### Bulgarian Swallow Brings Back Message From India

Sofia. -Two swellows of the spring have brought replies to messages they carried when they thated for warmer climes last autumn. Ivan Stefaneff, a school teacher of a nearby village wrote a message in French reading "Greetings from wrouged and unamp py Bulgaria." and fastened it under the wing of a swallow that nested in the eves of his house. When the birds returned recently he noticed one had a wrapping on its leg and capturing it he found the following written in Eng-"Good times will come for us the wronged and ill-treated of the city of Meluni, India, Feb. 18."

Another experimenter received a more remantic reply to a message sini-Barly dispatched. He is an official in Haskove and his swallow brought him the following from Medina, Arabia: "We beautiful daughters of Mohammed sigh for endearing words and caresses Ghul Fatme, wife of Hassan Bey."

# Change to Be Made in Twelve Shipboard Craft

Washington -- Immediate conversion of an Initial group of 12 shipping board cargo vessels to Diesel-propelled types is planned by the board, whose experts have been studying for several months a program which eventually will involve an expenditure of \$25,000,000, the amount authorized by congress for this purpose, President Coolings has signed the bill providing the means, and the established bound was represented as prepared to adopt the plane drawn up by its construction angineers.