

The Boston Traveler announces that "gasol oil is going down." Well, of all summer beverages that beats the band!

Under the big display advertisement of a rival an economical merchant once secured the publication of these words: "Me, too, James Jones."

Judicious liberality is the best economy in trade, and honest wares, honestly advertised and honestly sold, bring the dealer popular confidence, financial competence and personal content.

Four girls at the Wisconsin University succeeded in getting in debt so deeply that their chattels were attached by creditors. And yet some people contend that coeducation is a failure, and does not tend to fit women for business.

One of the railroads in Pennsylvania has not waited for the passage of a bicycle baggage law in that State, but announces that it will carry bicycles and baby carriages free. This goes ahead of the legal requirements and provides an outing for the whole family.

Farmers complain that it is hard to hire labor in the cities as it was before the electric railways began to reach out into rural places. Inventive electricians will have to help out the tillers of the soil, for it is evident that the "unemployed" will not count for much when there is a rush of work in the fields.

A boy in New York found \$4,346 in bank notes on the street. He gave the money to a policeman, who turned it over to his Captain, and thus it reached the owner within a few hours. This is a wholesome incident that speaks volumes for the boy and the policeman. If the gratitude of the finder is of the customary affluent character the boy by this time doubtless has received 10 cents or perhaps a dollar and the policeman is rejoicing in an assurance of appreciation of his rectitude.

What a crank with a determined purpose can do is well illustrated in the case of Mr. Hines, a North Dakota farmer. He studied the wheat transportation question. He found that a railway capitalized at a price of \$25,000 a mile could carry wheat at a profit when charging 11 cents a bushel for it. He resolved then that he would persuade his brother farmers to build their own railroad for transporting wheat from Grafton to Duluth. The work on the road is done on the co-operative plan, the farmers themselves turning out with their teams and performing the hauling, grading and timber cutting. At first Mr. Hines was laughed at as a crank, but already forty miles of the road are done, as an answer to the gibes of unbelievers. The farmers take stock in the new road as part pay for their work, showing that they have faith in their own enterprise. The road when finished will be 281 miles long. It will enjoy the distinction of being the only farmers' road in this country.

Joseph Jefferson was recently quoted as saying that Frank Mayo, who died suddenly, was America's representative actor. Middle aged men of to-day remember his "Davy Crockett" as the most thrilling dramatic event of their boyhood. The dramatic critics never liked the character, but the people did, and it ran for many years. "Davy Crockett" wore a buckskin suit, lived in the backwoods, and was regarded by people as having a heap of plain common sense. His golden rule: "Be sure you're right, then go ahead," ran through the play just as "damn it" runs through many more modern plays. Davy was a very strong man, and once, while protecting the heroine, was chased by wolves. They sought refuge in an old cabin, but upon entering found that the bar used to hold the door shut was gone. Rolling up his sleeve, Davy put his big right arm in place of the bar, and set the gallery wild. But Mayo was capable of heavier acting, and had played in Shakspearean roles, "Don Caesar" and "D'Artagnan" and plays which are still on the boards. The hit of Mayo's life was made in "Puddin' head Wilson."

To most white people who remember the thrill of horror with which the news of the Custer massacre was received, there is the provocation of a nervous shock in the fact that six thousand Sioux were recently on the Little Big Horn, holding war dances in celebration of the part which they bore in that bloody affair. It is easy for white people to think of Indians as "Red devils," and of members of the Sioux tribe as among the worst of the lot. Yet when that powerful tribe was first visited by white men, and indeed as late as a century and a quarter ago, the Sioux were friendly and hospitable. Jonathan Carver spent the winter among them, near the headwaters of the Minnesota, in 1767, studying their language and their manners. He found them generous and kindly disposed. During his canoe voyage of more than five thousand miles through the country of the Northwestern Indian tribes, he was never fired at from ambush nor subjected to any unfriendly attack. A generation later, American explorers proceeding up the Mississippi were in constant danger of their lives by reason of attacks from hostile Indians. What had produced the change? Not innate viciousness in the heart of the Indian, but the bad example of the whites, was the cause of the family warfare waged by Indians against whites on the plains and

in the mountains of the Northwest, which culminated in scenes of slaughter like those in which Canby and his men perished in the lava beds, and Custer and his gallant band were done to death on the banks of the Little Big Horn.

"Women seem to have a rooted dislike to insuring their lives," recently declared one of a new firm of women "insurance brokers" to a Philadelphia Times reporter. "If it is a married woman, she will say: 'Why should I pay money for another woman to enjoy after I am gone?' It is strange that married women always take it for granted that their husbands will marry again if they ever become widowers. The single woman has plenty of reasons for refusing to insure, and most of them valid. She says that she cannot afford to, for one thing; then she will ask why she should insure her life and pay out money annually, when she has no children to enjoy the money she may leave. She will say that there is absolutely no inducement for her to go into such a speculation. Even when we point out the advantages of an endowment policy, which will give her the money at the end of twenty or twenty-five years, she cannot see it. She feels that she would rather have \$10 in her pocket to-day than wait twenty-five years for \$10,000. I suppose there must be about two million of dollars invested by the rich women in this city in insurance policies. Your rich woman knows the value of insurance, and she does not hesitate to take any means to add to her wealth, even if she must die to do it."

Martin Albert, a band-leader and cornet player of New Brunswick, N. J., caused the arrest of John Barry, whose room adjoins his in an apartment house, for snoring. The reason given by the complainant for the apprehension of the accused was that Barry's style of snoring was a shock to his musical instincts. "The snore is away up in G," the cornetist explained to the judge. "He dimminuendo, strikes a cantabile movement, takes a crescendo neatly and then catches his breath on the retard as if he had a small circular saw in his larynx. When he gets his second wind he begins well down on the bass clef, and then bursts with a fine Wagnerian finale that cracks the wall paper in my room." In rebuttal Barry disavowed any knowledge of having snored, and furthermore declared that he did not propose to stay up nights to see whether he did or not. When the judge asked him what he had to say in answer to the complainant's statement that he had heard him snore, Barry answered that one could not always believe what he hears. The judge discharged Barry. Evidently the court was convinced that the complainant had misstated his reasons for arresting Barry. It was quite apparent that the other occupants of the apartment house had mistaken the snoring for Albert's cornet practice, and had annoyed the musician either with compliments or notices to quit. Anyway, the court reasoned that even if Barry's performance was as bad as the band-leader reported it the offense was justified by the law of retaliation, and to be impartial both the snorer and the cornet player would have to go to jail. As to requiring snorers to take instructions in order that their nocturnal exercises shall not offend the trained ear of a musician who may happen to sleep in the same block, that would be a flagrant subversion of the constitutional privilege of every citizen to enjoy life, liberty and audible respiration.

Disease Detected by X-Rays.
In the Massachusetts Institute of Technology Prof. Norton has been able, with the aid of X-rays, to make a diagnosis in cases of tuberculosis of the lungs, pneumonia, enlarged heart and enlarged spleen. The lungs, when sound, are very transparent to the rays, but become more or less opaque when diseased. The heart is slightly more opaque than the lungs, and its outline can be easily seen. The same is true of the spleen, which is more transparent than its surroundings, and of the liver, which is more opaque. The skull transmits the rays and reveals, by variations in opacity, the location of its thicker and thinner parts, but of the texture of the brain nothing can be made out. An indication of the ease with which opaque foreign substances lodged in the body can be detected is given by the statement that buckles on the clothes are easily seen through any part of the body except the lower portion of the abdomen. Young persons are more transparent to the rays than their elders, but the different parts of their bodies show less contrast, even the bones being transparent in a boy 10 years old.

Swedish Proverbs.
Mrs. Baker, in Pictures of Swedish Life, says that the Swedish language is rich in proverbs. Many of these are exactly the same as are found in English. "The burnt child dreads the fire" and "Better late than never" are instances. Others, while corresponding to proverbs in English, have a turn peculiar to themselves. The following are a few examples: "When the cat is away the rats dance on the table;" "A new broom sweeps well, but an old one is best for the corners;" "One bird in the hand is better than ten on the roof;" "When the stomach is satisfied the food is bitter;" "To read and not to know is to plough and not to sow;" "That which is eaten from the pot never comes to the platter."

Runaways.
A device for freeing a run-away horse from the vehicle has been invented by a New England man. By moving a lever the shafts are released from the vehicle, and the vehicle can be guided by the same lever until it stops.

Does Woman Earn Her Keep?
Thousands of women work in the mines of Belgium, England and Cornwall. In the first-named country they



Saw a Meteoric Stone Fall.
Mr. J. F. Black, a farmer, living about nine miles from Ottawa, Kan., saw a small meteorite fall on his land late in the afternoon of April 9 last, and going to the spot where it fell, picked it up. It weighs thirty-one ounces and contains a little iron, but consists in the main of stony material.

New Zealand's Gems.
Agate-hunters from Germany are now exploring New Zealand with very promising results. Blue and white topaz and splendid specimens of amethyst have been discovered by them, as well as large pieces of quartz so filled with slender, rutile crystals as to resemble masses of matted hair.

Java's Man-Ape.
Prof. Marsh, of Yale, has recently announced his opinion that the remarkable remains of a skull, teeth and other fossil bones found by Dr. Dubois in Java belonged to an animal that "was not human but represented a form intermediate between man and the higher apes." This opinion confirms the belief of the discoverer of the bones, who called the animal pithecanthropos, or "ape-man." The bones were found in ancient volcanic deposits, and belong, Prof. Marsh thinks, to the age known as the Pliocene.

New Kind of Kites.
Meteorologists are now trying to study the atmosphere high above the ground with the aid of self-recording barometers and thermometers, etc., sent up in kites. This has resulted in a great improvement in the forms of kites, which are now constructed on scientific principles. At the headquarters of the Weather Bureau in Washington box-shaped kites, with open ends and sides partly covered with silk, are used. Instead of twine or cord, fine piano wire is employed to hold the kite. At the Blue Hill Observatory, near Boston, box-shaped kites have been sent up to an elevation of almost a mile above sea-level.

A Phosphorescent Party.
Monsieur Henry, of the Paris Academy of Sciences, has invented a phosphorescent starch with which surprising effects can be produced. Used as a face-powder, it makes the countenance glow in a dark room with mysterious radiance. Recently a "5-o'clock tea" was given in Paris after dark, no light being employed except that supplied by phosphorescent starch sprinkled over everything in the room. The carpet, the ceiling, the pictures on the walls, the furniture, the teacups, the flowers, the faces, shoulders and dresses of the ladies all glowed and gleamed, making a spectacle that was at once startling and beautiful.

Oldest Man in the World.
According to statistics collected in Germany the oldest man known to be living anywhere on the earth is Bruno Cotrim, a negro born in Africa, but now living in Rio Janeiro. Upon the same authority is based the seemingly incredible statement that there are 3,883 persons living in Bulgaria, each of whom has reached, or passed, the age of 100 years, making one centenarian to every 1,000 inhabitants of that country; Germany, with a population of 52,000,000, claims only 78 centenarians; and France, with a population of 40,000,000, 213 centenarians, while Ireland, whose population numbers only 4,000,000, has 578 centenarians.

Destroying Friction.
After calling attention to the fact that man was content with the use of oil to keep machinery in running order until he began to ride the bicycle, when he demanded some better labor-saver and invented ball-bearings, the Scientific American proceeds to illustrate and describe some recent applications of such bearings. They are employed for wagon and carriage wheels, for the carrier-wheels of cable roads, and for the shafts of swift-running machinery. They practically dispense with the use of the oil and greatly reduce the amount of friction to be overcome, thus adding to the effective power of all machines in which they are used. The singular fact is noted that Prof. Hoy, of London, showed experimentally that ball-bearings, when properly constructed, are practically proof against wear. He demonstrated this fact by weighing the balls of a bicycle-bearing when they were new, and again after they had been subjected to long service. They showed no loss of weight.

American Soapstone.
In the Ragged Mountains, in Albemarle County, Virginia, the scene of one of Poe's weird tales, exists a great deposit of soapstone which is said to be the finest in the world. It was discovered only about twelve years ago, but now a small colony exists at the spot and three quarries have been opened. The stone, which is very hard and fine-grained, is cut out in blocks averaging nine tons in weight, and afterward is sawed into slabs. It is employed, among other things, for tanks in chemical laboratories, tubs and sinks in laundries, linings for fireplaces, griddles, which need no greasing when made of soapstone, tables and fittings in hospitals and dissecting-rooms. Acid is said to have no effect upon the stone.

Does Woman Earn Her Keep?
Thousands of women work in the mines of Belgium, England and Cornwall. In the first-named country they

formerly worked from twelve to sixteen hours a day, with no Sunday rest. The linen-thread spinners of New Jersey, according to the report of the Labor Commissioner, are "in one branch of the industry compelled to stand on a stone floor in water the year round, most of the time barefoot, with a spray of water from a revolving cylinder flying constantly against the breast; and the coldest night in winter, as well as the warmest in summer, these poor creatures must go to their homes with water dripping from their underclothing along their path, because there could not be space or a few moments allowed them wherein to change their clothing." Yet women are "exempted" from labor attended by hardship!

Despite these washerwomen, miners and linen-thread spinners, we are told "it is woman's privilege generally to be exempted from the care of earning her livelihood and that of her offspring."

It would seem to be time that this libel upon woman should be scorned by fair-minded men. From all antiquity the majority of women have been faithful workers, rendering a full equivalent in labor for their scanty share of the world's goods. The origin of every industry bears testimony to this. In our own era, while women were still housekeepers, did they not earn their livelihood? What was the weaving, the sewing, the cooking, the doctoring, the nursing, the child care, "the work that was never done," if it was not earning a subsistence? Even in these days, when woman goes forth and receives the reward of her labor as publicly as man, she is no more worthy of her hire. Her ancestors—sweet and saintly souls—did not dream of recompense. But was it not her due, and shall we refuse to credit it because man was then a self-sufficient ignoramus who deemed himself the only one fit to acquire property?—Popular Science Monthly.

Will Not Submit to Dictation.
The subject of renewing the privileges of the Bank of France will shortly come up for discussion in the chamber, after having been in abeyance since 1892, when the senate approved a bill for the purpose.

The bill has not since been modified and the provisions included in it will, it is thought, be adopted without material alteration. One of them, which was to empower the bank to increase its note issue from 3,500,000,000 francs to 4,000,000,000, was passed as far back as 1893. The charter expires on Dec. 31, 1897, and the proposal is to extend it for a period of twenty years from that date, in consideration of the bank making certain concessions to the state.

Among these concessions is one by which the bank is to forego all future interest on the government debt, 140,000,000 francs, and not to demand repayment of the capital so long as the charter is in force. The bank is to undertake the service of the national debt and transact other business for the treasury, both at the head office and branches, free of charge, and make an annual payment to the latter for 2,000,000 francs during the first year of the currency of the new charter and 2,500,000 francs per annum subsequently. It is to open several new branches and make advances to agricultural cooperative societies.

It is not improbable that an effort will be made to convert the bank into a state institution, but such a project does not command support either in financial or ministerial circles, and is not in the least degree likely to meet with success.—Edinburgh Scotsman.

Interviewing Casey.
A reporter of a New York daily once went to the office of the late General Casey to get some information concerning the Lydecker tunnel story. General Casey looked at the young man rather sternly at first, and the reporter expected but scant detail to follow. "Come in, sir!" he exclaimed, in a tone of almost unpleasant command. The two doors of his office were open. The reporter was standing. The general, without a word, went to one door and closed it with the utmost precision; then he went to the other door and closed it with the same precision. The reporter was in doubt. The two were in the room alone. Coming up to the newspaper man, he pointed his index finger straight at his eye, and said: "Sit down there, young man, and I'll tell you the—'at story you ever heard.'" And he did.

Edison's Speech.
Mr. Edison has only once tried to make a speech. It was before a girls' seminary, where he had agreed to lecture on electricity. He had engaged a friend named Adams to operate the apparatus while he talked; but when the "Wizard" arose before his audience, he felt so dazed that he simply said: "Ladies, Mr. Adams will now address you on electricity, and I will demonstrate what he has to say with the apparatus."

Heard While Waiting.
A passenger, while waiting at a railway station for his train, amused himself by watching the queer looks and antics of a tailless cat as it played about on the platform. The stationmaster happening to pop out of his office, the intending traveler pointed to the cat and said, "What kind of a cat is that—Manx?" "No," replied the stationmaster, with a sly smile, "Brighton Express."

A Vacuum.
A perfect vacuum is a perfect insulator. It is possible to exhaust a tube so perfectly that no electric machine can send a spark through the vacuum space, even when the space is only one centimeter.

A woman should at least be grateful for one thing; she is never asked to be a pallbearer.

ACROSS THE ROCKIES.

Much Engineering Skill Required to Lay the Poles Properly.

Telephone construction in the Rocky Mountains is anything but child's play, and is attended with a great deal of hardship. The line built from Leadville to Aspen several years ago is a case in point. It took two months to cover the entire length, forty-eight miles. In ordinary construction the poles would be set forty-two to the mile, but at certain points, where sharp turns were necessary, the number would sometimes be increased to seventy-five to the mile. The members of the construction gang had to be as expert as axmen as they were as linemen, for when timber was encountered a path of 200 feet on each side of the line had to be cleared in order that wires might not be broken when trees were blown over by the terrific blasts which at times prevail in that region.

A great deal of the comparative slowness of the installation was owing to the inability of the workmen to labor in such a rarified atmosphere. At one point the wires were strung at an elevation of 12,000 feet above the sea level. In such an altitude the linemen soon become completely tired; after he has climbed two or three poles he has to take a rest to recuperate his energies. The preparation of the holes for poles, which would have been tedious in similar ground even in an ordinary atmosphere, was an especially slow and fatiguing operation. It was often necessary to blast a hole for the pole by the use of giant powder, and an ex-miner, who had had an extensive experience with explosives, was assigned to the job.

The digging of one pole hole would sometimes occupy him for a whole day, working honestly. Over 500 pounds of powder were used on the line for this purpose. When the continental divide was reached the poles had to be abandoned and the wires were placed in a submarine cable, which was buried in a two-foot trench for a distance of 7,900 feet. The advisability of abandoning aerial construction at this point was demonstrated by the experience of the company that maintains the Denver and Leadville line. At one point on that line, Mosquito Pass, the poles were originally set seventy feet apart. As soon as the wires were covered with sleet they promptly snapped and the line was useless. Double the number of poles were then used, with the same result. The space between the poles was then reduced to twenty-five feet, but as soon as the sleet came the line was swept down flat. Eventually an underground cable was laid for two and a half miles, and there has been no trouble since.—Denver Field and Farm.

'Rastus' Birthday.

The oldest birthday celebration of which we have ever heard is thus described by a gentleman who has lately traveled through the South:

In the northern part of Georgia I came upon a negro cabin, and as I approached, it became evident that some extraordinary commotion was going on within. In fact, shouts and yells of terror succeeded one another so rapidly that I hastened to see what could be the trouble.

As I drew rein before the door, half-a-dozen ragged pickaninnies ran out. All but one of them were screaming and crying at the tops of their voices, while the odd one, as merry as the others were sad, began tumbling cartwheels and standing on his head. At this moment a man, evidently the head of the household, appeared in the doorway, and in answer to my inquiries gave me the following explanation of the mystery:

"Yer see, sah, dis is 'Rastus' birfday," indicating the one whose joyful antics I have just mentioned. "Now, Ise powerful hard up jes' at presen', an' didn't hab no money ter celebrate in de usual way. An' it jes' bruk me all up ter see de res' habin' jes' as much fun on 'Rastus' birfday as 'Rastus' was habin' hisself. So, times bein' so hard, de only way I could see was ter gib de res' all a-leekin', an' dat kinder raises 'Rastus' up ober de odders'."

A quarter flung to 'Rastus' proved a charm that raised him still higher, and dried the tears of the others in an instant. Happier children than these same pickaninnies as I rode away, a moment later, it would be hard to find.

Grew on Sunday.

A little girl in Aberdeen brought a basket of strawberries to the minister very early on Monday morning. "Thank you, my little girl," he said. "They are very beautiful. But I hope you didn't gather them yesterday, which was the Sabbath day." "No, sir," replied the child, "I pulled them this morning; but they was growin' all yesterday."—"Quaint Sayings of Children," by the Rev. David Macrae.

The Bicycle Brush.

The very latest thing in bicycle sundries at this writing is a bicycle brush, which is being placed on the market by a manufacturer on South Dearborn street. It looks a good deal like a very large tooth brush and is used for reaching points in the bicycle anatomy, that are difficult to get at with a cloth.

Lads of Enterprise.

Two enterprising boys have erected a small shed near the entrance to Oakwood Cemetery and do a good business on Sundays checking the bicycles of riders who wish to visit the cemetery, but are not permitted to enter with their wheels.

Shoes.

When shoes have become stiff and uncomfortable from constant wear in the rain, or from lying by unworn, apply a coat of vaseline, rubbing it in well with a cloth, and in a short time the leather will become soft and pliable.

Every man is weak in certain directions, and should use no time in acknowledging it.

THE OLD CLERK.

His Life After All Was Not Such a Failure.

It was noon, but the desk nearest the window in the great library was still vacant. The clerks whispered together, and the boys who carried books to the alcoves glanced at it uneasily.

"Old Peyton," they said, "has been here for twenty years and never missed a day before." One of the boys watered his flowers, for the dead old clerk had his window full of growing plants.

The chief librarian came out of his office. "Mr. Peyton is dead," he said abruptly. "Found dead in his bed last night. It is in the morning's paper."

The library was always quiet, but a great silence filled it during that day. The boys stopped skylarking, and the clerks made no comments to each other, even about the dead man. Mr. Peyton had been very deaf, and rarely spoke to them. But as they looked at the vacant stool, and remembered the lean, bent figure in its shabby clothes, and the kindly face, it seemed as if a strong help had suddenly dropped out of their lives.

In the office the chief discussed the dead man with a director.

"Never was a life such a failure," he said. "Peyton was a fine Greek scholar. He gave his youth and middle age to his book on Greece. His whole heart was in his work. He put into it great research and learning. But Schliemann's discoveries suddenly proved all his theories false. There is his book on the shelves, worthless; covered with dust. Nobody reads it. Then he lost his hearing. He could not even teach Greek. He was only fit for clerical work, which barely kept him alive. He had no wife nor child. A wasted life, sir! A wasted life!"

"You will go to the funeral?" said his friend, rising to go out.

"Most certainly!" said the chief, hotly. "Why, there is no man living for whom I feel as I did for Peyton! I could tell you things of the lofty honor of that old fellow, his tenderness, his charity. Oh, you know a man when you live with him twenty years! No clergyman ever made Christianity real to me as he did."

Meanwhile the old clerk lay still and cold on his cot in his little chamber. It was a bare room, for he had been very poor. On a shelf was his great work, which even he had not opened for years.

Was it a failure? Had his life failed with it? A miniature picture of his mother, a young, beautiful woman, hung over it.

"Perhaps she knows why God let my work go for nothing," Peyton used to think, as he looked at her. "I don't understand."

His Irish landlady was in the room all day. She told every one who came how the old clerk had cared for her and her children for years. How he had kept Mike at work, and stopped Ben from drinking.

The neighbors came, hard-working, intelligent folk, and each had a story to tell of advice or help which he had given them in some strait of their lives.

From the policeman on his round to the crippled newsboy at the corner, he had been a friend and wise father to them all.

Later in the day the clerks came, and the boys from the library. They brought bunches of flowers and with tears laid them on his breast, thinking of kind words and deeds which were as natural to the poor clerk as his breath.

"They did not notice the great work of his life on the shelf overhead, the work that had failed. They only knew that one of God's helpers had gone out of the world, and mourned for him.

His mother's face smiled down on it had always done, well content upon her son. And upon the dead man's face there was now a strange, listening look, as of one who was called home and heard his welcome.—Youth's Companion.

What's in a Name?
The story of their trouble is easily told.

There was William J. Brown, who had an office on the seventh floor, and W. Joseph Brown, who had an office on the sixth floor. Each tried to stick to his own method of parting his name, but many labor-saving correspondents insisted upon using only the initials, and that made a good deal of trouble. It was annoying to one W. J. Brown to see a check sticking out of a letter as he opened it, only to find that it belonged to the other W. J. Brown, and it was annoying to the other W. J. Brown to pay express charges on packages belonging to W. J. Brown on the floor above.

William J. tossed a letter into W. Joseph's office one day with the suggestion that it would be a good scheme for him to pay his bills, as he (William J.) was tired of receiving them.

It was not until W. Joseph's wife made the mistake of addressing a letter to him as "W. J." that the real trouble began. William J. handed the letter to W. Joseph and asked with righteous indignation: "Why don't you supply your wife with enough money when she goes visiting?" He got away before there was a chance for an explosion, but it came the next day when W. Joseph drifted into his office and handed him a letter with the remark: "I wish you'd marry that girl. You've been engaged long enough, and, besides, her letters are getting sickening."

Range of the Voice.

The range of the human voice is quite astounding—there being about nine perfect tones, but 17,592,196,044,515 different sounds; thus fourteen direct muscles, alone or together, produce 16,883; thirty indirect muscles, ditto, 173,741,823; and all in co-operation produce the number we have named, and these independently of different degrees of intensity.