arrent of 48,000 Volts Can Hardly Reod-Romarkable Sights.

Beveral tests have been made with alternating currents of electricity at very high pressures. As only 1,600 volts were needed to kill the condemned murderers in Sing Sing prison, the effect of 45,000 and 48,000 volts on animate and insumate objects can hardly be imagined. The difficulty of insulating the enormous force is very serious, as an arc will flash across four or five inches of space between the electrodes, and high tension currents have not been used much. The current for the lights and power at the cleatro-ischnical exhibition at Frankfort-mathe-Main was transmitted from Lauffen, where it was generated by en, where it was generated by aler power, at a pressure of 16,000 dts. After the close of the exhibition periments were made with the wire nd insulators at high pressures, and hey were among the most interesting of

the electrical experiments.

The distance between the cities is about 108 miles, and the wire, one-eighth of an inch in diameter, weighed 123,000 pounds. The insulators were able to preserve the intensity of the cur-cent. Each was composed of three sec-tions. The porcelain top was flat, with a deep groove for the wire. Underneath
was a saucer shaped receptacle, and bement that were two more, one of larger
breadth and depth than the other, and
all were filled with oil. The binding
wires ran through the oil, which is a
good nonconductor. At Frankfort a
commutator changed the alternating
correct to a coptinuous current for light errent to a continuous current for light and power. In the experiments the pressure was increased to 20,000, 40,000 and 48,000 volts.

Beyond 27,000 volts the percelain in-mistors were punctured frequently. In oducing an are between two carbons at 40,000 volts a plate of glass was serced very quickly. At 48,000 volts he intensity was so great that the light was not so brilliant as it was at 20,000 volts. It is believed that 50,000 volts can be reached with conductors pro-tected from the effects of weather. CURRENTS OF 40,000 VOLTS.

Almost at the same time the Siemens Bros., of London, were experimenting with high tension currents, having had at the Naval exhibition an apparatus capable of delivering a current at a pressure of 45,000 volts. This description of a private exhibition of the apparatus with 40,000 volts is from Engineering:

"On a table was an electrode some three inches in length, connected to one terminal of a transformer. Over it was mounted a large sheet of glass three milimeters thick, and above the glass was ad electrode terminating in a sharp point, the distance between the elec-trodes being three centimeters. When the current was turned on to the primary coil of the transformer there first appeared a purple haze at the upper elec-trode atreaming toward the glass. As the correct increased this haze grew in fullness and definition, and began to throw out feelers, which darted outward and as quickly withdrew. As the elecnotive force augmented still further, bat, spread themselves along its surface.

purple color of the spark disappeared, and was replaced by white light of the greatest brilliancy, which glistened and flashed until the spectators had to turn away their bedazzled gaze.

Herding effect upon the nervous specially recommend it to the enfecthed and sick.

"T is the great specific for maiaria. REMARKABLE EXPERIMENTS.

very thin washers of vulcanite, interplate in curved, fanciful forms which twined and twisted and weaved them selves into a glistening filagree, compared Washington, New Jersey, for catalogue by an imaginative spectator to an agonized Japanese chrysanthemnm.

"This experiment had not the brilliant refulgence of the one that preceded it. but was characterized by a quivering irradiation which wreathed and tossed like a bird beating itself at the bars of its cage. In spite of its less formidable appearance, however, it proved destructive to the glass, which presently flew in pieces with a crash. Several sheets were tried in succession, but each was pierced and broken and allowed the current to attain its object of flowing di rectly from one electrode to the other."

In experimenting with an arc at 44,000 volts the arc established itself when the electrodes were five inches apart, but the flames, instead of bridging the space, spread out in two thin tongues at right angles to the electrodes and parallel to each other. When the electrodes were pushed nearer together the flames wan-dered back along the stems, repelling each other.—New York Times.

Only One on His Side. judge who is noted for his fondness for conveying to jurors in his charges to them his own opinions with regard to the merits of the case. In one case he had done so with great plainness, but to his amazement the jury remained out for hours without coming to an agree-ment. The judge inquired of the bailiff what was the matter, and learned from him that one juror was holding out

against the other eleven. He sent for the jury at once, and stating to the jurors that he had plainly intimated how the case ought to be decided, said he understood the one juror was standing out against the other eleven. He proceeded to rebuke the juror sharply. The obstinate juror was a nervous little man, and as soon as the

"Yes, sir," said the indignant judge; "what have you to say?" "Well, what I wanted to say is, I am

the only fellow that's on your side."-London Tit-Bits. Was Columbus a Dago?

judge was done he rose and said:
"My lord, may I say a word?"

"I don't often laugh outright in the achoolroom," said a down town teacher the other day, "but I have to struggle Main street. hard to suppress an audible smile son

my class one day in the events just preceding the revolutionary war, and after I had read and explained the lesson I began to ask questions about it. I asked one boy to name one of the causes that led to the revolt of the colonies against Great Britain. Tea, he answered. That was all right, so I said to another, a colonies led to the revolt of the colonies against Great Britain. Tea, he answered. That was all right, so I said to another, a colonies led to the revolt of the colonies against Great Britain. Tea, he answered. That was all right, so I said to another, a colonies against of the colonies a

Dogs May Talk Some Day Professor A. Graham Bell believes that dogs may be taught to pronounce words, and is now making scientific exin support of it. The value of such a Popular Science Monthly.

Sometimes a strictly vegetable and fruit diet, avoiding carefully all butter and vegetable fats, will purify the comand vegetable rate, with purity the com-plexion when the most careful regime in bathing and all the prescriptions of the physician are of no avail. Such diet-ing need be adhered to for only a few weeks and then one may go back gradually to one's ordinary diet, remembering, however, that an abundance of rich pastries, cakes and sweetmeats, esten promiscuously between meal times, will tend to ruin the very best complexion in the world.—Exchange.

I remember some curious facts of my own experience in the army in 1863 and 1863. I was not strong, and indeed was hardly fit to be in the army at all. And when I found myself exposed all day long to a steady rain, and at night to Mayor.... the outdoor air, with no fire, no change of clothing, no shelter but a canvas covering open at both ends, through which the rain dripped constantly, it seemed certain that the "death o' cold" so often First Ward...... predicted must surely follow.

Why it did not follow was more of a mystery then, however, than it is now. For I was in a place where the art of man no longer excluded one of the prime principles of health. I breathed pure air because I could not help it. During a service of fifteen months, with severe exposures, but fresh air constantly, the same immunity from colds prevailed. I remember, too, that when I came home from the army the blessing and

sleep in on the one hand, but very soon colds, sore throats and related troubles on the other.-Rev. J. W. Quinby in Popular Science Monthly.

They slay multitudes when they are the product of neglect of incipient disease. A "slight" cold, a fit of in-day evening. A cordial invitation ex-tended force themselves through it in digestion, billousness, or constipation, the day evening. A cordial invitation exselt mad desire to reach the other elec- each or any of these "minor ailments" rods. The whole space below the pointadvance in many cases with "leagueery first and third Sunday. Sunday
deconductor became alive with them, destroying strides." Give them a School at 3 o'clock in the afternoon. exhibited a mass of leaping, crack- swift, early defeat with Hostetter's Prayer meeting every Thursday evening ing threads of purple fire, which writhed and twisted in impotent attempts to burst through the barrier, and failing Abernethy administered an alarming Evanor.

"But this was beyond their strength would ye have—the plague!" Rheu- ing at II a. m., by the pastor, until the electro-motive force approached a special sp flowed completely around it in all di. The genial warmth which this superb ctions. At that moment the intense medicine diffuses through the system,

Beatty's Planes and Organs. "A change in the arrangement was then made. The upper pointed electrode gan and piano manufacturer, is buildwas replaced by a brase disk, three ing and shipping more organs and plano than ever. In 1870 Mr. Beatty fitted up with a complete line of the surface of the glass plate with three left home a penniless plow-boy, and by drugs and druggists' sundries. Our his indomitable will he has worked his stock is pure, fresh, bright, and new. very thin washers of vulcanite, intervening between the two. The current was then turned on in the same gradual manner as before. The space between the two disks immediately filled with stacles laid in his way that would have the two disks immediately filled with stacles laid in property of Beatty's organs and pianos since 1870. Our prices will be reasonable, and by fair dealing and courteous treat ment, we hope to secure a share of wrecked any ordinary man forever, he purple light, which had sufficient motion turns to an advertisement and comes curately compounded. in it to recall the flame of a Bunsen out of it brighter than ever. His burner, spread out under the bottom of a beaker. Sparks then began to appear at the edges, and, as they gathered strength, to radiate a little beyond them.

Gradually they became streamers. Gradually they became streamers. That means a business of \$20,000,000 if stretching out along the surface of the we average them at \$100 each. It is al-

### times. For instance, I was instructing GENERAL DIRECTORY.

ored boy, by the way, 'Name another Sec. of Interior...... John W. Noble cause.' After a pause he replied, 'Cof- Sec. of War...... Steven B. Elkins Sec. of Navy ..... Benjamin F. Tracy

my surprise when he said triumphantly, Governor, Sylvester Pennoye, Dago, Philadelphia Record. Sec. of State ...... Geo. W. McBride Supt. of Pub. Ins ..... E. H. McElro; Atty. General ..... Goo. E. Chamberlain

State Printer ..... Frank Baker periments in this direction. The same opinion was expressed two centuries ago by no less an authority than Leibnitz, who adduces some startling facts

2d " W. R. Ellis U. S. Senators ...... John H. Mitchell J. N. Dolph 2d " ..... W. R. Ellis W. P. Lord R. S. Bean F. A. Moore language as a means of enlarging the animal's sphere of thought and power of conception, and of giving a higher development to its intellectual faculties, is incalculable.—Professor E. P. Evans in G. W. Colvig Robert Clow A. N. Hamilton R. R. Coms.... Clerk .... Frank Miller

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REV. A. S. COPLEY. ing and evening. Prayer meeting on Wednesday evening. REV. R. L. SHELLEY, Pastor.

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