<text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text>

a states a provide a good roads movement may 'reeive an imperts through the experi
a states a prociate Good Roads.

 The good roads movement may 'reeive an imperts through the experi

a states a prociate Good Roads.

 The good roads movement may 'reeive an imperts through the experi

a states a prociate Good Roads.

 The good roads movement may 'reeive an imperts through the experi

 The good roads movement may 'reeive an imperts through the experi

 The good roads movement may 'reeive an imperts through the experi

 The good roads movement may 'reeive an imperts through the experi

 The good roads movement may 'reeive an imperts through the experi

 The good roads movement may 'reeive an imperts through the experi

 The good roads movement may 'reeive an imperts through the experi

 The good roads movement may 'reeive an imperts through the experi

 The good roads movement may 'reeive an imperts through the experi
 The good roads movement may 'reeive an imperts through the experi
 The good roads movement may 'reeive an imperts through the experi
 The good roads movement may 're
 The good roads movement may 're
 The good roads movement may 're

 The good roads movement may 're
 The good roads movement may 're
 The good roads movement may 're
 The good roads movement may 're

 The good roads movement ma

ence of our troops in Cuba and Portô Rico, where the highways are so wretched as to be scarcely worthy the name. General Roy Stone, the au-thority on roadmaking, is at the front and has been teaching our boys prac-tical work along this line. Upon their return to civil life it is fair to pre-sume that the thorough appreciation of good roads will bear fruit in a de-termined effort to secure such in their respective sections.

respective sections. Experiment With Wide Tires. It will give to bicycle iders who have scouted wider tires some satisfac-tion to know that in a series of experi-ments made by the Missouri Depart-ments made by the Missouri Depart-ment of Agriculture it was found that it required much less trouble to pull a loaded vehicle having wide tires than when narrow tires were used. This was found especially true on poor roads. While the use of wider tires is growing among American riders it is a peculiar circumstances that in England tires are being made narrower.

England tires are being made narrower. Good Roads in Porto Rico. General Miles must have considered the advantage of a good road when he selected a landing place in Porto Rice. Leading to the capital is a macadam road sixty miles in extent. Perhaps the experience of cycling has some-thing to do with it, for, like Captain Sigsbee, the head of the United States Army is a devotee of the wheel.

Army is a devote of the wheel. Army is a devote of the wheel. Army is a devote of the wheel. Army is a devote of the wheel. Are veneration for age is carried to such a great extent as among the in-habitants of West Africa. For the men who have been successful in trade, in the pursuit of war, the hunt, in the councils of state or in any other way have distinguished themselves above their fellows, the respect shown amounts almost to adoration, and pro-portionately so when they have at-tained to advanced age. The younger members of society are trained during their childhood to bestow the utmost deference on age. They must never come into the presence of aged per-sons or pass by their dwellings with-out taking off their hats and assuming a crouching gait. When seated in their presence it must always be at a respectful distance. If they happen add man a lighted pipe or a glass of water the bearer must always fall upon on eknee.

water the bearer must always fall upon oneknee. Aged persons must always be ad-dressed as "father" or "mother." Any disrespectful language or deport-ment toward such persons is looked upon as a misdemeanor of no light moment. A youtiful person carefully avoids communicating any disagree-able news to such persons and usually addresses them in terms of flattery and adulation. And there is nothing which a young person so much de-precates as the curse of an aged per-son and especially that of his own father. —San Francisco Examiner.

The Horses of Manila.

# Mr. Wallace Cumming writes of "Life in Manila" for the Century. Mr.

Temperature in Porto Rico.

Cumming says: Among the first things to impress a stranger are the horses. Descended from horses brought from Mexico, they have become nuch smaller, while they are also much more shapely. In fact, I have never seen a better-look-ing breed. There is nothing of the pony about their shape, though in ize they range between forty-eight and fity-two inches. At first it looked absurd to see them ridden by big men whose stirrups hung down to the horses' knees; but I soon found out that they easily carried a rider weigh-ing two hundred pounds. The for-eigners have a jockey elub, which holds two meetings a year at the beau-tiful turf track at Santa Meas. To avoid sharp practice, members of the club only are eligible to ride. This necessitates a scale of weights start-ing at one hundred and thirty-two pounds and rising to one hundred and fity-four pounds. It demonstrates the speed and strength of these minia-tives horses that a mile has been run in two minites and ten seconds by a pony carrying one hundred and fity-pound and rising to meand a diffy pound and rising to mean state. No-ody walks; everybody rides; and on any special flesta thousands of car-riages fill the streets. I doubt if there is a city in the world that can turn out half the number of private vehicles in proportion to the population. Cumming says: Among the first things to impress a

oxygen or any gas that might produce oxygen.

Naval Cadets. The number of naval endets is fimited according to the following rule: Each member of the Honse of Representatives is entitled to name on candidate to represent his district until he graduates, resigns or is dis-charged. In addition the President has the privilege of appointing one and ten annually at large. The ex-aminations for admission are held each year, one in May and the other in September. The requirements of each candidate are: He must be between fifteen and nineteen years of age; he must be physically sound and able to pass a creditable examination in Eng-lish grammar, United States history, geography, arithmetice and algebra, as far as the theory of quadratis equa-tions and their practice. The pay of a naval cadet is \$500 a year, beginning with the date of admission.

SUILDING UP BIG CUNS.

hanges in the Method of Making Can E. B. Rogers, of the United States

Changes in the Method of Making Can-non and Armor. E. B. Rogers, of the United States Navy, has an article in St. Nicholas on "Big Guns and Armor of Our Navy." Mr. Rogers says: Not so very long ago all funs were cast by pouring moulten iron into a mould and then lettfing it cool slowly; but it was found that guns made in that way were not strong enough to stand the tremendous strain of the large charges of powder required to send a shot fast enough to enable it to pierce the steel armor of a modern ship of war; so the old method of casting was abandoned as the armor became stronger, and now nearly all modern cannon are what is called "built up." First a long steel the of the finest and strongest metal is made, and around this are placed, or "shrunk on," successive cylinders or rings, one over the other, with the greatest care and nicety, first the "jacket" and then the "hoops." So nowadays a great gun, instead ob eing one piece, as it used to be, is composed of many parts. The process above described is called "assembling" agun, and in the place of the short cast-iron cannon of former days shaped something like b big bottle we have the long, graceful steel rifles, which look not unlike gigantic watch-keys. They vary in sizo from the small rapid-fire guns a few hundred pounds in weight, to the great thirteen-inch "Peacemaker," as it was fondly called, which tips the scales at sixty tons-120,000 pounds. All these modern guns are breech-loaders, and after the shot and powder 'breech-plag, "which is showed into the sup at hot or shell has alsc under-more a change. The round cannon-ber, the breech. The shot or shell has alsc under-mone a change. The round canon-ber way to the "projectile," which is male of steel, hardened aceording to the work it has to do, and it those which are intended to piece armored ships the metal must be so hard that

is made of steel, hardened according to the work it has to do, and in those which are intended to pierce armored ships the metal must be so hard that the projectile can be fired through steel armor of a thickness equal to one-eighth more than its diameter, without its being broken or materially injured; for instance, an eight-inch projectie, according to this rule, must be cepable of piercing a nine-inch steel plate.

## POPULAR SCIENCE.

It has been estimated that the heat of comots is about 2000 times fiercer than red-hot iron. If the weight of the body be divided

If the weight of the body be divided into eleven parts, eight of these parts will be pure water. Air in its pure state is composed thus: Nitrogen, seventy-seven per cent, oxygen, twenty-one per cent, other compounds, two per cent. The most wonderful astronomical photograph in the world has been pre-parel by London, Berlin and Parisian astronomers. It shows at least 68,-000,000 stars. An argillaceous earth named "tfol," which contains free gelatinous silica, is largely used in Northern Africa by the Araba sa s astbatitute for soap in washing linen. Every ton of Atlantic water when evaporated yields eighty-one pounds of salt; a ton of Pacific water, seven-ty-nuc pounds; Arcic and Antarctic waters yield eighty-five pounds to the ton, and Dead Sea water, 187 pounds. M. A. Mouneyrat has found that a M. A. Nouneyrat has found that a mixture of acetylene and chlorine, ex-posed to diffused light, always combines to form acetylene tetrachloride with-out explosion, in the absence of free

## Naval Cadets.

A Battle For a Bucket. A Battle For a Bucket. A battle in which a bucket was the only prize was fought at Bologna in 1325. The people of Modena had made a raid upon that city and had carried away, as a trophy of victory the bucket belonging to the publid well. The expedition of the Bolognese to recover this bucket forms the basis of the famous poem of Tassoni, "The Bape of the Bucket." "Their captain, who no worthier spoll could show Than this same bucket conquered from the Composite the specified of the Bucket."

Temperature in Porto Rico. The highest recorded temperature in Porto Rico is 117 degrees Fahrenheit, but such heat is phenomenal, the mercury rarely rising above minety-seven. This is "pretty considerable hot," sure enough, but the prevailing northeast winds alleviate the disconfort amazingly. The rainy season is not identical with Cuba's, but begins with August and ends with December. The heaviest rainfall recorded was in 1878, when it aggregated eighty-one inches. The average annual precipitation is sixty-four and a half inches. The average yearly rainfall in New York for the past six years was a trifde more than forty-two inches. — New York Press. Geological Camps.