## 马rientifir Smmerican．

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## TERMS FOR THE SCIENTIFIC AMERICAN．


Remit by postal or express money order，or by bank draft or check MUNN $\&$ Co．， 661 Broadwas，corner of Franklin Street，Ne\＃York The Scientific Americnn Su
 send it to the editor，as the polls will close on Juls 13th，and it is desired to procure as large a vote as pos－ sible．Some who have not carefully read the an－ nouncement have cast their votes for such inventions as the printing press，the steam engine，etc．Of course，such ballots will have to be thrown out，as being too indefinite，or as not coming within the terms of the competition．The final result will be published in our special issue of July 25.

## the paris exposition of 1900.

Exhibitions have come thick and fast in the closing years of the nineteenth century．The more frequent industrial displays of States，cities，and provinces have been the background which has served to show up the stately splendor of the less frequent interna－ tional fetes－they are nothin． less－－such as that at Paris in 1889，and again at Chicago in 1893．At the close of our late exposition，which was universally ad mitted to have been more extensive，complete，and art istic than any that preceded it，it was predicted that the limit had been reached，and that nothing on a like scale would be again attempted．
Yet，as a matter of fact，before the blackened re mains of the Chicago Fair are well cleared away，it is announced that the arrangements are complete for what is to be the most elaborate and brilliant indus－ trial display of the century．If any people but the French had made the promise，those of us who had the privllege of seeing the proportions and beauty of
the architectural display at Jackson Park would be the architectural display at Tackson Park would be prepared to doubt its fultillment．There who wanting visitors to our exposition who complained of its size，and suggested that a smaller display of selected exhibits would be more effective and intelligible．If the Parisians are aiming to gather a yet larger collec－ tion of exhibits，there is a danger that it will become bewildering and oppressive in its proportions．That the display of architectural and landscape skill in the buildings and grounds will be of a very high order goes without saying in a city so rich in artistic talent as Paris；and yet we very much doubt if any group－ ing of buildings in the Renaissance and later．French styles，however skillfully carried out，can be made to equal the chaste beauty and dignified repose of the noble group which composed the Court of Honor at Jackson Park．
It is to be hoped that our Congress will deal liberally with the question of a subsidy to cover the expenses incidental to a worthy national representation at the Paris Exposition．With one exception，the great man－ ufacturing nations made a noble response to our invi－ tation to Chicago，and the present indications are that there will be a keen rivalry between England，Ger many，Russia and France，which will lead to a magni ficent industrial display on the part of each one of these nations．What is to be the relative standing of the United States？If we do anything at all it should be well done．Rather than make an imperfert display of our natural and industrial resources，it would be bet－ ter to stay away altogether．We do not fear such a result；but we dothink that it would be greatiy to our national advantage to put up a really magnificent dis－ play which shall be fully representative of our vast re sources and industries．
The time has come in our industrial history when we are beginning to turn our eyes ab
more actively into foreign markets．
Many distinctively American products，whose market is at present exclusively American，would be found to be equally adapted to European needs，if a trial were once made．It is only within the last few years that the typewriter has been systematically introduced－
and there are a thousand and one labor－saving de－ and there are a thousand and one labor－saving de－ the water，which are as yet unknown in Europe．This is true not merely of the lighter trades，but even in the weightier matters of transportation．The Euro pean still navigates his rivers and lakes in uncom fortable and shelterless steamers；and the sight of a model of a Sound or Hudson River steamboat，with its spacious saloons and comfortable staterooms，would be a positive object lesson in matters of accommoda－ tion and comfort．Moreover，there is scarcely a trade which has any degree of connection in Europe that could not spend a large sum on its exhibits with th certainty of a profitable return．

The secretary of Smithsonian Institution has leased one of the tables at the Naples zoolocical station for an other three years for the benefit of American students

## A Singular Mode of Incubation．

It is well known that the Australian megapod is a bird that is accustomed not to sit on its own eggs．In certain parts of Australia are found numerous mounds of considerable size and height，which the first explor ers took to be burial mounds．These were made by the Megapodius tumulus，which uses them for hatching its eggs．They have sometimes considerable dimen－ sions ：a nest that is 14 ft ．high and 55 ft ．in circumfer ence may be regarded as large．Each megapod builds its own nest with materials which it gathers from all sides，and these are exactly what the gardener uses in the wonth of March to make his forcing beds，namely leaves and decomposing vegetable matter，which．by their fermentation，give off an appreciable amount of heat．In the forcing beds，this heat hastens the sprouting of the seeds；in the nest it suffices for the development and hatching of the young birds，and the mother can go where she likes and occupy herself as she wishes，without being troubled by the duties o sitting．In the small island of Ninafou，in the Pacific， another lird has a somwhat similar habit，in so far as it also abandons its egys；but in place of obtaining the necessary heat from fermentation，it gets it from warm sand．The leipoa，or native pheasant of Aus tralia，acts like the megapod，and watches the temper－ ature of its mound very closely，covering and uncover ing the eggs several times a day to cool them or heat them，as becomes necessary．After hatching，the young bird remains in the mound several hours；it leaves on the second day，but returns for the night and not until the third day is it able to quit the pater nal abode．－Revue Scientifique．

## with Rotary Motion

An interesting experiment described in Invention illustrates the stability given to a moving body by ro tating or spinning it rapidly，as in the case of a rifl bullet．The experiment can be made by any bicyclis when cleaning his wheel．＂Assuming the front whee is detached，lay it upon the floor and，keeping the axle vertical by the hand，give the wheel a vigorous spin The axle remains unaffected，the wheel running in the ball races．Now lift the wheel by means of the axle and put the left hand under the wheel and catch the other end of the axle．You now have a horizontally revolving wheel，and you will be astonished to find how difficult it is to turn the wheel into a vertical posi ion as long as the spinning continues．Let this cease and you can do as you like with the wheel，but give it vigorous spin and you will find，whatever position it as then in，it will show the perversity of a pig if you attempt to change it．In making this experiment，ge a good grip，as it throws a very considerable strain on the arms and feels，indeed，as though one were strug gling with some aerial wrestler．Imagine now a shot starting on its course with this rotary motion；if it meets an obstruction fairly and squarely，the forward motion will be somewhat arrested，but the boring action due to rotation will give it a terrible penetrat ing power．Again，suppose it strikes at a slight angle and you may think it will glance off like a stone from smooth piece of walling．The new force，however here comes into play，and most decidedly objects to the alteration of direction，thereby causing penetra tion that would be quite impossible under other cir umstances．After making the above experiment，you will find you have a much increased respect for a sho red from a rifled barrel．＂

## How Colds are Taken．

A person in good health，with fair play，says the Lancet，easily resists cold．But when the health flags a little，and liberties are taken with the stomach or the nervous system，a chill is easily taken，and according to the weak spot of the individual，assumes the form of a cold or pneumonia，or it may be jaundice．Of al causes of＂cold，＂probably fatigue is one of the mos efficient．A jaded man cowing home at night from a long day＇s work，a growing youth losing two hours sleep over evening parties two or three times a week， or a young lady heavily＂doing the season，＂young children overfed and with short allowance of sleep re conımon instances of the victims of＂cold．
Luxury is favorable to chill taking；very hot rooms eather beds and soft chairs create a sensitiveness that leads to catarrh．It is not，after all，the＂cold＂tha is so much to be feared as the antecedent condition that give the attack a chance of doing harm．Some of the worst＂colds＂happen to those who do not leave their houses or even their beds，and those who ar most invulnerable are often those who are most ex posed to changes of temperature，and who by good sleep，cold bathing，and regular habits preserve the tone of their nervous svstem and circulation．Proba bly many chills are contracted at night or at the fag nd，of the day，when tired people get the equilibrium of their circulation disturbed by either overheated sitting rooms or underheated bedrooms and beds．This i specially the case with elderly people．In such case the mischief is not always done instantaneously．or in single night．It often takes place insidiously，ex tending over days or even weeks．

