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ooks, etc. This will facilitate answering your ques tions. Be sure and give full name and address on every tions. B
sheet.
Full hi
of this
Full hints to correspondents were printed at the head of this column in the issue of March 13th or will be sent by mail on request.
(12111) C. B. says: Will you kindly inform me as to the principle of the "elec trolytic detector" used in wireless telegraphy ectro-motive force applied to it by a shunted ell of battery, the electrodes become polarized, Nhen oscillations are sent through the cell in this condition, they destroy the polarization of the small electrode, and the current suddenly increases, but it returns to its former small value when the oscillations cease. This explanation, with a full discussion of the sub-
ject, you may find in Fleming's "Elementary Radio-telegraphy and Radio-telephony," which send for $\$ 2$
(12112) T. F. Van W. says: Can you tell me if the speciflc gravity of the moon is known, and if so, how it compares with that 0.61 that of the earth. One of the best determinations of the density of the earth is 5.527 , reached by Boys in 1894. This would make the specific gravity of the moon to be
3.37 . (12113) C. S. says: 1. If we take two jars of equal inside diameter, and fill
both with equal quantities of alcohol and leave one jar open, but close the other with a cover, with only a small opening through
which the vapar can escape, will the alcohol evaporate in the same time from both jars, all other conditions being equal? A. The slowly out of a bottle with a small mouth than out of one with a large mouth. 2. Doe rect sunlight? That is, will a plant grow as well if exposed to reflected as to direct sunlight, and will reflected light kill certain bacteria, as well and quickly as direct sunlight A. Ordinarily reflected light differs in no respect from the same light before reflection.
The spectrum of moonlight is simply a fainter spectrum of sunlight. Any effect which direct light can produce will be produced by re-
fected light, except for the loss in brightness by reflection. 3. Does sunlight lose in intenis no perfect reflector. Light is lost by re is no perfect reflector. Light is lost by re-
flecting it from any mirror whatever. A metal mirror will reflect about $6 / 10$ of the light which strikes it perpendicularly, and a mer-
cury mirror about $75 / 100$. The loss is larger f the light strikes the mirror obliquely.
2nd the A-Z's, a club of asks: On April a spirited meeting at the home of one of its "Resolved that, if a tree falls in the forest and there is no animate being present, there
is no sound." After the discussion the judges is no sound." After the discussion, the judges n the merits of the debate, however, the merits of the question. Not bing satised on the merits of the question, however, as
rought out in the material presented, the club would like to ask that you answer it in your paper. A. The answer to your question de applied to the argument. In most dictionaries wo definitions are given: 1 A sensation produced through the organs of hearing. In this
sense if there are no human or animal brains present to receive this sensation through the present to receive this sensation through the
organs of hearing, there is no sound. 2. The physical causes of such sensation: alternate compression and rarefaction passing through any substance, solid, liquid, or gas The but especially through the atmosphere the tree, whether or not there are organs of hearing present to receive them, and conse
quently in this sense sound is made thourh quently in this sense sound is made though
unheard.
(12115) J. R. D. says: May I ask your opinion re the following? What is the correct size and length of stove pipe to give dimensions? Diameter 6 feet, height to top dome about 4 feet, terminating in a stove pipe At present I have a 10 -inch stove pipe about 12 feet long. Draft below is supplied by leaving open the irregularities in the ground. The stove is intended to aid in burning out stumps, the idea being to bore and light the stump in the usual way and then place the stove ove it to give a strong draft and suction, so that
the roots as well as the stump would burn clean out as clean out. At present, with the stove pipe as
mentioned it does not appear to make much difference nor make the bored stump burn any longer than without it. Is the stove pipe to portioned, even if not successful in burnin
fire by the draft and suction, which is not the case. A. We should not say that the dimen-
sions of your stove pipe could be usefully sions of your stove pipe could be usefully
increased, or that combustion of the increased, or that combustion of the stumps
would be more complete if the draft were in creased. If we correctly understand your
method of burning the stumps, a stage must me reached at which combustion can only be
from the inside outward, especially when nearing the roots, after which the flame would
have to travel against the draft, and the latter would be unlikely to help it. Such method of destroying stumps must be slow a the best, as a block of solid wood would soon leaving no inflammable surface exposed to the
flarues.

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see evidences of the growth of this movement. The magnificent exhibits which are to b
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Mendelism. By R. C. Punnett. Ameri can Edition with Preface. by GayBook Company, 1909. This is the second edition of a popular work
Mendelism which has won for itself a dervedly high place in current popular scientific literature. Why Mr. Wilshire should ave burdened the book with a Socialistic Pre-
ace is more than we can understand. It is far cry from Mendelism to Socialism.
Les Planétes et leur Origine. By Ch André. Paris: Gauthier-Vi
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Atlas und Lehrbuch der Hygiene besonderer Berücksichtigung der
Städte-Hygiene. Herausgegeben von
Professor Dr. W. Prausnitz, Vorstand
des hygienischen Instituts der
Universität Graz. München: J. F.
Lehmann's Verlag, 1909.
The science of hygiene is concerned with
the preservation of the health of human
beings. Its study is based upon an accurate
knowledge of the human organism and the
effect of environment upon that organism.
Hygiene is either scientific or practical. Scien-
tific hygiene endeavors to ascertain everything
that may have an effect upon health, and to
determine the conditions which are most favor-
able for the development of mankind. Prac-
tical hygiene has for its object to apply the
principles which have thus been scientifically
discovered, so as to reduce the dangers to human health. In order to attain this obje practical hygiene requires innumerable tec construction of a dwelling, but everything that pertains to a dwelling. Unfortunately, this engineer and the physician have not worked in
perfect accord, and also because the landholder is only too frequently prompted to
build his structures as cheaply as possible. It is the purpose of the work before us to set
forth these principles of hygiene simply and will acquire a broader knowledge of the development of a new and important science.
The book is intended not only to help the architect who draws the plans of the house,
and the builder upon whom devolves the duty of construction, but it will serve the purpose
of indicating to the factory or house owner what he owes his employees or house owner
his house. The book will als of of the sanitary engineer to point out definitely
just what he wants. Hitherto able to talk only vaguely, because he had no
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