

MUSCLE AND VITALITY.

One Athlete Points Out How Development of One May Sap the Other.

It is the custom during the early summer afternoons and evenings of those interested in boating to wander along Heights and watch the men getting in trim for their annual contests. Among this number last week was a man who was once the great all-around athlete in the east, and who has now attained eminence in the medical profession of New York. His opinion of the men in the various boats, as expressed to a reporter for the *New York Times*, was that they appeared too eager to sacrifice vigor for muscle.

"The popular notion is," he said, "that the bigger and more conspicuous one's man's biceps are the more vigorous he is. As a matter of fact the relation between the size of a man's muscles and his vitality is not nearly so close as is generally supposed. Some of the strongest athletes I have known have gone under at critical moments because of insufficient vitality. They had built up tremendous and powerful muscles on the exterior and their bodies at the sacrifice of the power within the body that we call vitality."

"It is a comparatively easy thing for any ambitious athlete to develop large muscles and do it with such success that he will almost ruin his staying powers. Certain exercises, carried on moderately, that tend to build up muscular tissue, will also build up vitality, but it is an indirect and not a direct relation. If you will notice some of the men in the practice crews, they have sunken eyes, drawn cheeks and show very clearly the effects of the vital strain under which they are practicing. If I mistake not, many of them will be compelled either to take a good rest or drop out before the final contests."

"The same thing is true," he continued, "of men in business life. When a man comes to me for nervous treatment I usually find that he has been working too long. But it is more difficult for me to get him to shorten his hours than it is to induce him to take medicines. The hardest and most disagreeable prescription to some men is rest. The men of the greatest force in the world are the men of greatest vitality. A man who takes care of himself and does not overwork and over-stimulate will resist disease where another man, under precisely similar circumstances, will succumb to it."

"We all know busy men who are not weak, but who have comparatively little physical power. They lack vigor and they cannot stand the strain of hard work. Professional baseball players and men who play golf are not necessarily men of muscle; but they are men of good vitality. There I have been preaching a little sermon from Marlin Heights; but if some men will take a hint from it and develop the vitality that will surely avail them in time of unusual strain mental or physical, I shall not have talked in vain."

WHEN WHALES DIVE.

One Hundred Yards Believed to Be the Maximum Depth of Their Plunges.

Both whalers and naturalists have usually held that when whales "sound," they descend to great depths. One writer on the subject estimates that the larger members of the group dive fully a thousand yards. In a memoir published in Belgium, and noted recently in *Kingfisher*, Dr. Raciney challenges this belief, and states that, in his opinion, 100 yards is the maximum depth to which any whale can dive, and that many species cannot reach anything like that limit. Says the writer:

"Why should whales want to go to such depths? All whales sound for the purpose of obtaining food, and in the profound darkness of 1,000 yards what could they get? These species which feed on animals might perhaps obtain what they want, but how about the species which feed on fishes and cuttles? At a depth of 1,000 yards they certainly could not use their eyes to detect non-luminous species, and we have no evidence whatever that they feed on the self-luminous deep sea fish and cuttles (if indeed there be any of the latter). On the contrary, the available evidence indicates that they feed on ordinary light-dwelling fishes and cuttles which live in much shallower zones. But this is not all. It is known that the effects of a pressure of more than three atmospheres proves fatal to human life, and although we may believe that whales can stand triple this pressure, or nine atmospheres, which would occur at about 12 yards' depth, it is conceivable that they could resist the effect of ten times the latter pressure or 90 atmospheres. Moreover, does it not follow that a whale whose body is at a slight angle to the water at one time pressure could exert the muscular force necessary to project the body to a depth of 1,000 yards?"

The Raciney contention further that whales never strain the effort of swimming to such depths will follow a step further when they could not well do so, as they do.

Refective Reactions.

Reactions of the body to the different types of stimuli taken by the greatest number of parts of the body, especially of the skin, are as numerous as are those that are caused by internal processes. This is such an instrument of control of our stars seven times as far as any that have been yet observed. Science

Exception Treasures. Type-writers with their letters are now being used in Egypt.

ISLAND OF JAN MAYEN.

It Was Discovered by Henry Hudson, But Another Man Gets the Credit For It.

One of the newspapers speaking recently of the exploratory enterprise on the island of Jan Mayen north of Iceland said that the island was named after the man who discovered it. This is a slight inaccuracy which is found in nearly every encyclopedia in existence. The island of Jan Mayen was discovered by Henry Hudson in 1607, four years before it was visited by the Dutchman whose name it bears, says the *New York Sun*.

The boy in Henry Hudson's bonnet was a consuming passion to find a short passage which might be utilized by the maritime nations of northwest Europe in their trade with the Orient. Everybody knows that he was cruelly set adrift to perish in a small boat in Hudson bay after he had found that Hudson strait and the great bay to which it led him were not a part of the northwest passage to China and India which he was seeking.

Dr. Leon reports that the ruins have

never been known to the world of science and that they are the most primitive that have been discovered in Mexico, and are, in fact, so ancient that it

will require a great deal of time and study to learn in what epoch they were

built as well as by whom people. Dr.

Leon has made the following state-

ment in reference to the discoveries:

"In a range of small hills that extends

from north to south from the high neig-

horing mountains we find a very nu-

merous series of pyramidal constructions

guarded by elaborate trenches and

connected, for the purposes of communica-

tion, by wide avenues, which were set

off at intervals by sloping acclivities,

platforms and staircases. All the pyra-

mides were found to be quadrangular and

to have been built with especial refer-

ence to the cardinal points. Those im-

portant monuments were constructed

entirely of rocks and sandstones cut

and laid in juxtaposition. The surface

dressing of the pyramids is small stones

worked into cubical forms of very ornamental appearance and laid close togeth-

er. As a rule, every four of the pyra-

mides surround a court. All of them

are so grouped that each and every one

of them guards the entrance to the

courts. But if in any case the entrances

are not protected, great walls with

bases much wider than their summits

reinforce the pyramids. These walls

are of such sizes that their summits

are really streets.

"They are well paved with flat stones

and have platforms, staircases and

sloping acclivities like the avenues. On

one of the highest of the platforms and

at the bases of all the pyramids we

found pieces of pottery which cer-

tainly made before the time of Colum-

bust and which were evidently the

remains of a civilization relatively more

advanced than that of the builders of the

pyramids."

"We found also many sculptured

scenes in bas-relief of prehistoric times.

Pictures of human beings and animals

in stone and iron were quite numerous.

Domestic utensils of stone painted rose

color were scattered over the ground.

"Stone knives and arrow heads of the

obidian epoch were encountered by

great abundance. Ledges of the mountainous country are covered with ruins."

REMEDY FOR HAY-FEVER.

Antitoxin Found in Pollen of certain Grasses Fed with Beans

Heal Effect.

Sufferers from hay fever will now be rejoicing, no doubt, that their special malady, which has hitherto made them look forward with something like dread to the approach of early summer, is at this moment the subject of extensive experimental research at the hands of Prof. Dunbar, of Hamburg, and that so far as his investigations go, judging from Sir Felix Semon's report in the *British Medical Journal*, there seems to be a reasonable likelihood that in the near future medical men will be in a position to treat the complaint on a basis of rational pathology and therapeutics, says the *New York Sun*.

Up to the present time the only sure way of obliterating relief from the affection has been to run away from it and to while the summer in some place where the hateful pollen is not, a course obviously impossible for the many.

Now, however, according to Prof.

Dunbar, the toxin has been discovered.

He has isolated from the pollen of certain grasses a toxic substance which, when applied in very dilute solution to the eyes or nostrils of individuals who are subject to hay fever, produces within a few minutes the characteristic local symptoms of the complaint.

The toxin solution has no effect upon one who is not a sufferer from hay fever.

By injecting the pollen of various grasses into the circulation of certain animals—rabbits, goats, and horses—Prof. Dunbar has ascertained, he believes, producing an active antitoxin, which, when applied to the eyes and nostrils of hay fever patients in whom the local symptoms have been produced artificially by the previous employment of the toxin, immediately quietes the subjective symptoms and in five minutes causes the objective signs to subside.

Causes appear to be the chief offenders in causing the affection, for Prof.

Dunbar has failed to discover the toxin in the pollen of roses and many other flowers.

The toxin was obtained in sufficient

quantities for experimental purposes by extracting the root and rootlets of various grasses and by boiling them in water,

or in other words, steaming them.

It is an extremely heavy task to prepare

the grasses, and it is a laborious

process.

A man has just been paid for the

collection of the Nothos of Pergam-

on, which is a kind of plant

which grows in the fields of

Hamburg.

Harvard University is to have the

finest classical collection of Roman

coins of Brussels, the result of the

whole of the class, for it is rich

in Roman coins.

EXCEPTION TREASURES.

Type-writers with their letters are now being used in Egypt.

EARLY MEXICAN PYRAMIDS.

They and a City Antedating Columbus Are Described by an Archaeologist.

Great archaeological value is attached to the discovery of an ancient city in a remote portion of the state of Puebla, and in order to ascertain the exact import of the find the federal government has commissioned the subdirector of the National museum, F. Rodriguez, who is one of the foremost Mexican engineers, to visit the ruins and make investigations, says a special to the *Philadelphia Press*. Dr. Nicolas Leon, the archaeologist and ethnologist of the institution, accompanies him.

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