come to know what men are congenial to him. He then is not likely to join a society which has purposes that run counter to his own, and which may mar instead of make him. The fraternity also is not so likely to get men who will bring reproach upon its name. If properly safeguarded, a college secret society, I think, can be of great help to a man. It can round out his social side, offer him opportunities to make further useful acquaintances after he leaves college and provide a home when he goes back for class reunions."

## HOMES FOR COLLEGE MEN.

### *What Fraternities Supply When There Are No Dormitories.*

President J. G. Schurman of Cornell University believes that the fraternity life as it exists at that institution is as nearly ideal as possible for furnishing homes for the undergraduates. Cornell has no dormitories, and the society men live in their respective chapter houses. Nevertheless, he sees one danger which may doom these societies.

"I think that the small groups," he said, "who live in these fraternities and meet as brothers give one another a social, and perhaps moral, help which can be got in no other way. I know they form lifelong friendships, which are the source of much happiness and often of help in the struggle for life in after years.

"But I want to warn the fraternity men; I want to bring to their attention a feeling of anxiety which has disturbed me for some time. I feel that our fraternities are laying stress too exclusively on prominence. I am not saying financial, although that is perhaps a point which the fraternities do not overlook. I think they are giving too much prominence to student distinction in athletics and to the men who are exceedingly popular among their classmates. I am not saying that these things should not be considered, and fraternities should not have in their organizations fellows distinguished as football or baseball players; but I do say that the doom of the fraternities is sealed unless they do not put on an equal stand with these men the men who distinguish themselves in scholarship and science, which is the primary object of the university. I have a suspicion that the average standing of the fraternity man is not so high as the average standing of the man outside."

Andrew D. White, first president of Cornell University, who knows college fraternities in and out, had this to say of them:

"The fact upon which all fraternities rest is expressed by the truism that 'man is a social being.' Bring together a thousand students, or even a score, and they will begin to arrange themselves in parties, cliques and clubs. Groups of some sort are inevitable. Now, do not the fraternities reduce the evils arising out of these to a minimum and produce some results undeniably good? The first point to be noted is that when one of these inevitable associations takes the form of a college fraternity it must cease to be a mere temporary club. It has at once a reputation to make and maintain. It must hold its own against rival fraternities. The badge which each member wears fixes his responsibility; to be less than a gentleman is to disgrace it and to injure the fraternity.

"But the members of the fraternity are not only under this healthful pressure from without; they are generally under good influences from within. Very soon after a fraternity is founded it has a body of graduates sobered by the duties and experiences of life. This body very soon outnumbers the undergraduate members. These graduates naturally scan closely their brethren in the colleges, and are the first to condemn any conduct among them likely to injure the fraternity. Here is a vast difference between respectable, permanent fraternities and all temporary clubs. A typical result of the desire of undergraduate members to keep the approval of their graduate brothers is seen in the fact that intoxicating drinks have been rigorously excluded from the chapter rooms of all fraternities I have known; frequently by the vote of undergraduates not themselves abstainers.

"While college fraternities thus reduce the evils of student social groups, they can be made a very useful adjunct in college discipline.

### PUBLICITY HELPS FRATERNITY.

Professor T. F. Crane, dean of Cornell University, said: "In discussing this subject it should be remembered that the present fraternity is an entirely different thing from the college secret society of thirty years ago. Nowadays the fraternity owns or rents its house, in which the members room, eat and hold their meetings. The financial side of the enterprise is generally in the hands of graduate members, and in almost every case the faculty of the college is represented. The fraternity lives in an atmosphere of publicity, and is obliged to maintain its reputation through the reputation of its individual members. Secrecy is merely an incident, and the fraternity is a social club, with all the advantages of intimate companionship among the members. There is, of course, always the danger that the social side will interfere with college work and that the fraternity will restrict the student's interests. This is, however, prevented by the larger college associations, in which members of the fraternity take part—athletics, etc. Every fraternity desires to occupy a prominent position in the college world, and cannot afford to withdraw within itself. On the whole, I believe the influence of fraternities at Cornell has been good. I am convinced that if the fraternity did not exist other social organizations would spring up, not so responsible or sensitive to control. I also consider the intercollegiate relations of the fraternities valuable in acquainting the members with other educational institutions and in preventing collegiate isolation and narrow-mindedness."

Ex-Judge Frank Irvine, professor of practice and procedure in the School of Law, seemed most enthusiastic over the benefits that accrue to fraternity men in after life, saying: "Fraternity influence is now different from what it was in my days and different from what I thought it would work out. It has not tended to create classes, as the old opponents used to claim. Rather, the fraternity is more democratic now than before, and has made the university more so. First class fraternities do lots toward making young men level and keeping them so. I believe the disadvantages of the system to lie in the fact that fraternity men have too many outside interests, and don't keep up the scholarship of their under class men. But I think they will come to that before long. My impression is that the scholarship standing is higher outside the fraternities. It shouldn't be, for fraternity men are, on the whole, the brighter men. As to the question of advantages that members reap in after life, there is no doubt about it that the truest and best friends a man makes are those in his fraternity. Twenty-five years after graduation one knows that."

## STIMULATE STUDENTS.

### *Fraternity Rivalry Tends to Encourage to Best Efforts.*

President George Harris of Amherst College said that he was in favor of fraternities as they existed, because students who are members are encouraged to put forth their best efforts in whatever line of activity they may enter.

"Since, at Amherst," he said, "the students do not eat in the fraternity houses much of the cliquedness which otherwise results is done away with to a great extent. Many other arguments could be made in favor of fraternities in Amherst, but it is sufficient to say that, judging from the system here in vogue, the advantages clearly outweigh the disadvantages."

Professor Genung, head of the English department, said:

"To my mind, the benefits from fraternities greatly outweigh the detriments. There exists among fraternity members a social companionship which supplies a much needed want in college life. This companionship is so strong that it helps to link together men of the same fraternity, even when these men belong to chapters in different colleges. In this way, an intercollegiate bond of friendship is fostered. It is true that intense rivalry between fraternities leads to political 'deals,' but the wholesome college spirit is too strong to allow such 'deals' to become a permanent fixture."

Professor Crowell, head of the Latin department, said: "For the student, the Amherst College fraternity is of service because it furnishes the best substitute for a home. This fact is of great importance to the boy who has just left the refining influences of his own home. The student is also made more conservative through the fact that he is indirectly a property holder. Here in Amherst, for instance, fraternities own property valued at $146,200, the taxes on which exceed $2,300. The result is obvious. The responsibility of managing this property is a direct incentive toward conservatism and business sagacity."

Professor Olds, head of the mathematics department, said:

"The chief benefit from secret societies, known here in Amherst as 'fraternities,' is the fact that the strong attachment of the alumni to the fraternity insures the college's welfare. Fraternity and college spirit are inseparably linked together, and so it is that the man who is devoted to his fraternity is also devoted to his college, and vice versa. Other benefits are also noticeable, but the one mentioned above is, to my mind, the chief benefit."

Professor Crook, head of the political economy department, said:

"My undergraduate surroundings were entirely opposed to college fraternities, and my subsequent observations of the system in a prominent Western university, if anything, strengthened my early prejudices. So far as Amherst is concerned, however, my opinions have undergone a radical change. Amherst has eleven societies, and three-fourths of the students are members. The competition for recruits is so great that any man of good college qualities can be placed. Those who are not members remain out for a variety of reasons. Fraternities furnish a home for the boys where lifelong friendships are formed and where the new man finds a standard of honor to which he must conform. To be expelled from a fraternity is felt as a much greater disgrace than to be dropped from college. If an instructor finds a student deficient in any way an appeal to his fraternity meets a ready and efficient response. Thus the fraternity is an important educational factor; it is the chief means of social culture; and, what should never be overlooked, it is the most efficient disciplinary agency the college has. The important point is that it is automatic, and, in a very real sense, constitutes student government.

## WILL BE ORGANIZATIONS.

### *If Fraternities Were Abolished Clubs Would Succeed Them.*

As long as there are differences of wealth and social rank in the world there will be college fraternities or other societies of much the same character. Such is the belief of Dr. Henry Mitchell MacCracken, chancellor of New-York University. It is the duty of university authorities, therefore, he said, to counteract as far as possible these natural tendencies toward clannishness; but he did not think that the abolition of fraternities would put a stop to them. Were secret societies forbidden, local clubs would spring up in their place, such as may be seen at Princeton. Men of the same tastes or temperament or purposes somehow or other would flock together.

"The existence of organizations to which all are admitted and the purposes of which are so broad as to appeal to all ranks of society," said the chancellor, "do much to bring members of different fraternities and the non-fraternity men together, and, accordingly, such organizations are encouraged by the faculty. The literary, philosophical and scientific societies, the Young Men's Christian Association and the preparatory school clubs do much to level all classes among the undergraduates and build up a uniform college spirit. Whenever, therefore, it is possible for the faculty to encourage these associations it is done.

"Another illustration of ways in which the clique spirit of the fraternity may be restrained without open rupture is the rule established at this university concerning the rental of dormitories. We now have two dormitories and five fraternity houses. It has often happened that a freshman, after securing rooms in a dormitory, is initiated into a fraternity, and then desires to give up his rooms and move into the home of his fellow 'Greeks.' Yet, while such a change might meet his pleasure it would nevertheless cause a certain bitter feeling among his dormitory associates whom he would thus desert. It might make some of them regard him with envy, and perchance blight certain friendships which, if left alone, would grow stronger. For this reason, a man is held to a yearly contract for the payment of his rooms.

"I am not a fraternity man myself, having entered college at the age of thirteen, and being thought by my parents too young to join such a society; but, notwithstanding, I am not opposed to the fraternity when guided by good men. The fraternities at this university have maintained a good standard of morality, and not once in the eleven years that the institution has had its home at Morris Heights has it been necessary to investigate even the report of disorder in any of the existing five societies."

### LIFE TOO COSTLY.

"Fraternities have deteriorated since the advent of the costly fraternity house," said Professor John James Stevenson, who has had the chair of geology at New-York University since 1871, and who was graduated from that institution in 1863. Professor Stevenson is a member of a fraternity, but he said that when he became a Greek letter man fraternity life was far simpler than it is to-day. Men were chosen less for the money they had and more for their mental or social qualifications. The ties that bound the members of a certain society together were therefore more natural, and the spirit of congeniality stronger.

"At the present time the expenses of some fraternity houses," said Professor Stevenson, "amount to many hundreds of dollars. The rent of a representative fraternity house at this university, for example, is $1,000. In addition to that there are numerous other expenses. Servants are to be hired, and not only the table needs to be supplied liberally from day to day, but in addition there are spreads and receptions and private dinners, all of which count up. Then, if there are some rich yuong men who have plenty of money to spend for luxuries, they inevitably loosen the purse strings of the rest, who try to keep pace with them. And at the same that a youth spends his money he spends time which often should be devoted to his studies.

"In order to maintain an expensive clubhouse the chapter must have men, and men with money. When the seniors are graduated and go out, their places must be filled. It is for this reason that the rushing of freshmen has become such a conspicuous feature of fraternity life. As soon as a freshman reaches college, if he is regarded as available, he is smiled upon, patted on the back, invited to receptions, dined and perchance wined, and in all possible ways made to think he is an indispensable member of human society. All of which does not improve his modesty or broaden his character.

"In the early days, when there were no fraternity houses, where the expenses of the chapter were small, and threfore the number of members might be great or small as a chapter wished, freshmen were not rushed as they are to-day. A man was picked more in accordance with his individual merit. For that reason I do not think that some fraternities return their members a quid pro quo. I am in favor of a simpler life for fraternities, and then I think that good ones may be of great advantage to their members."

### REAL MERIT WINS IN END.

The belief generally expressed that the fraternity is harmful to the college as a whole, in that it helps on its own men to success in after life and handicaps those outside, is denied by Professor W. K. Gillett, of the department of Romance languages at New-York University.

"Real merit," he said, "wins in the long run. Although I am a fraternity man, I plainly see that after a man gets into the world he will succeed if it is in him, whether or not he is a 'Greek,' as they say. The ties of a fraternity are primarily artificial, and they must be cemented by real tests of friendship, just as all such allegiances are. A man may be introduced through his fraternity to men of prominence and position, but unless he possesses ability of his own he is certain to drop to his own level by the very nature of things.

"Of course, the fraternity makes the way easier for those who do possess sterling worth. In college, if it is a good one, it will bring out the best in a man if it is possible. Many and many a time upper class men have come to me and asked how they might make such and such a fraternity member bestir himself; and as often I have seen a man who at first showed little aptitude for work take a brace and go by others who had hitherto believed him their inferior."

## ELEMENTS OF STRENGTH.

### *A Fraternity Affords Motive for Fidelity to Ideals.*

At Smith College the opinions of ten members of the faculty would seem to show that social organizations among young women have much the same effect upon their college life as at colleges for men. The following statement officially represents what Smith professors think of the social organizations at that institution.

"It is helpful to a college to have students bound more intimately together, irrespective of class, and to unite members of different stages of maturity, establishing a certain sense of responsibility which belongs to bodies with organization. The fraternty adds a motive for fidelity to college ideals, and members will do for a fraternity what they would not do for the college alone.

"On the other hand, students may work against the college in making fraternity interests supreme above those of the college. By their electioneering certain fraternities force upon the college the appointment of their candidates rather than of the men best fitted for the place. By pulling against each other fraternities tend to ruptures in the college.

"The element of secrecy may keep members in closer connection, increasing their sense of ownership and the efficiency of the organization, but this element appears to some childish, and no more salutary in a club than it would be in a church. Moreover, it may be detrimental to the college to have rites and policies not open to the knowledge of the entire faculty. The fraternities tend to overestimate some one phase of the college life and develop hostility to one another and join in it against 'barbarians'—that is, members of no society.

"On the intellectual side a great advantage accrues to the college from the habit of some fraternities to supervise the making up of conditions and back work among their members. Also, the fraternities bring to the college from time to time people of reputation, and they further intercollegiate intercourse.

"The chief detriment of fraternities lies in the system of 'rushing.' It is thoroughly artificial and needs to be modified. The persons 'rushed' get an inflated sense of their own importance, and, if dropped, lose their self-respect. They are neither experienced enough nor in a state of mind to make a wise, calm choice.

"Students are benefited on the intellectual side by taking an increased pride in their work to justify their membership. They develop skill in administering the affairs of an organization and participate in corporate interests. In a large university the fraternity gives a sense of backing and strength, and therefore the individual gains courage and self-respect."

## IN AFTER LIFE.

### *Yale Figures Show More "Non-frat" Men in the Professions.*

According to figures gathered by the Department of Statistics of Yale University, more non-fraternity men in after life enter intellectual lines of work than do the fraternity men. The society men are more likely to go into business. In speaking of this subject, Julius H. Parmelee, of the faculty of social science of Yale University, said:

At Yale the college fraternities play their quiet roles as social mixers rather than as arbiters of college affairs. The interests of the university are too widespread and varied to be controlled by men whose policy would tend to benefit the few and not the many. The three senior societies and the four junior societies, which together comprise the fraternity system of Yale College, open their cave-like chapter houses but twice a week and for purely social purposes. The very use of the word "society" to denote these organizations shows how far Yale is removed from the typical fraternity system. Except that the junior societies are regarded by some as stepping stones to senior societies, fraternity membership is prized solely for its inherent benefits. The society life is carried on quietly and naturally. "Once each year the junior societies appear in public, when on Calcium Night they announce their elections from the sophomore class. This one demonstration and the somber chapter houses, fashioned like so many transplanted Egyptian temples, are the only visible signs of fraternity life.

The college record of the average society man at Yale parallels in many respects that of the ordinary student. If many of the society members are leaders in college, this is because of individual ability and not collective society pull. As to scholarship, the fraternity members lag behind the non-fraternity men. As a general thing, the percentage of society men on the scholarship honor lists is smaller than the total membership of the societies would imply. After graduation, too, the fraternity men prefer business pursuits rather than literary or professional work. This is shown by the following table of the more important occupations. The figures are for the last ten graduating classes (1895-1904), which constitute nearly one-half the living graduates of the academic department of the university, the percentage in each case showing the proportion going into the particular occupation:

| | Society Members. Per cent. | Non-Society Members. Per cent. |
|---|---|---|
| Educational (teaching, etc.) | 4 | 18 |
| Engineering | 1 | 4 |
| Finance | 18 | 10 |
| Law | 28 | 29 |
| Manufacturing | 17 | 9 |
| Medicine | 7 | 7 |
| Mercantile | 14 | 8 |
| Ministry | 1 | 5 |

Putting the principal occupations under the two heads of professions and business, we find that while 39 per cent of the fraternity men are engaged in professional work, as against 51 per cent in business for non-fraternity men, the professional figures stand at 59 per cent and the business figures at 29 per cent. This indicates even more clearly the better aptitude of the non-society men for the more intellectual lines of activity.

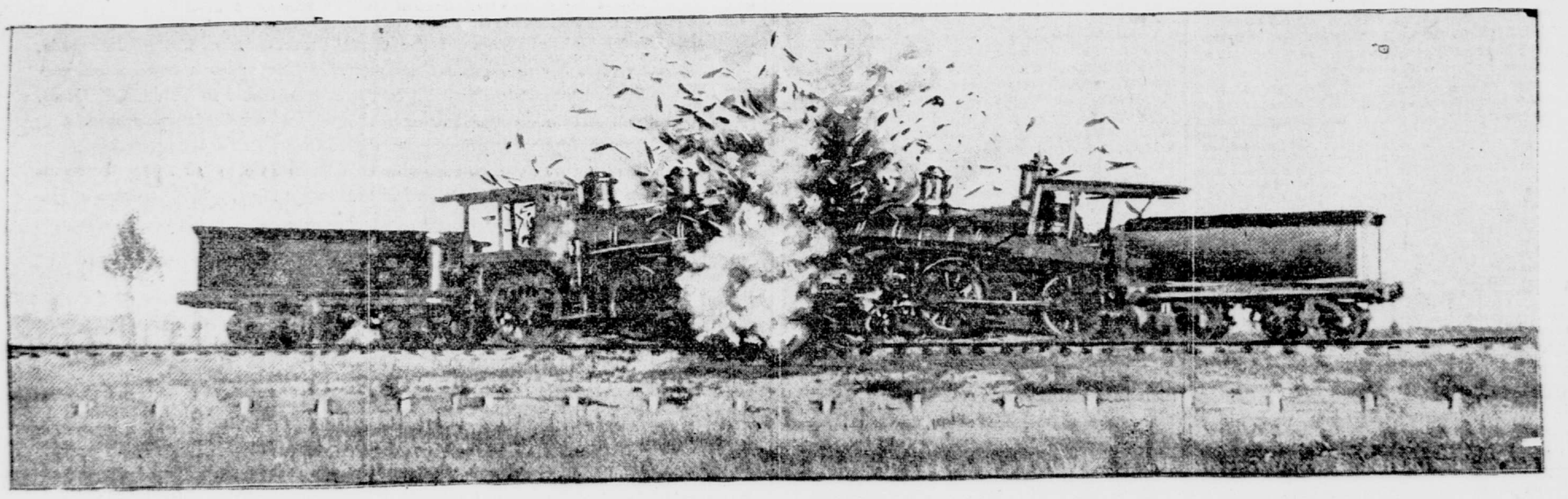
## ADVANTAGE TO STUDENTS.

### *Valuable Factor in Developing Mind and Body.*

Professor Le Baron R. Briggs, who is dean of the faculty of arts and sciences of Harvard University and also president of Radcliffe College, rendered a more emphatic verdict in favor of the societies. When it was made clear to him that the question did not involve any special branch of college societies or fraternities, such as the Greek letter fraternities, but concerned the broader field of elective societies of a social character generally he said:

"I regard college societies (by that I mean societies as they exist with us here in Cambridge, without going into Greek letter or secret societies, so called) as of distinct advantage to the undergraduate. Of course, they may be overdone, and I don't mean in this opinion that I approve of all college societies, but I believe that in the aggregate they constitute a part, and by no means an unimportant part, of college life. As they exist here at Harvard there is no question but that they are a valuable and important factor in stimulating and developing the boy; for example, they develop his executive faculty; there are endless ways in which they help develop him. Then, of course, they help him to make valuable friendships, which in college and after college are of great importance to him.

"There are, of course, inevitably, individual bitternesses and disappointments; that is to be expected. These are, of course, unduly magnified, and the importance of making some college societies assumes an extremely exaggerated position for the time. But it seems to me they assume their proper relation in after years. They die out and are forgotten, and I don't believe there is anything permanent or long surviving in them. In after years you see friendships of the most intimate sort between men who belonged to different fraternities or were not known to each other in college. I am therefore convinced that, despite the fact that there is unquestionably more or less overemphasis to the importance of making certain societies in the mind of the undergraduate, none the less I do believe the college society as it exists at Harvard is a good thing."



SNAPSHOT OF A LOCOMOTIVE DUEL.
(Reproduced from "The Scientific American" by courtesy of the publishers.)

### AN UNUSUAL DUEL.

#### Two Locomotives Pitted Against Each Other.

"In spite of the too frequent railroad accidents, especially collisions, which occur in this country, the opportunity is seldom afforded to note just what occurs at the time of impact when locomotives come together," says Day Allen Willey, in "The Scientific American." "The witnesses of such disasters are usually too excited over the occurrence to observe the immediate effects of the shock, and even if mechanical experts able to observe intelligently they have only a chance to glance before the force developed at the time of contact has expended itself.

"For a mechanical 'duel,' as it might be termed, a section of track 5,600 feet in length was recently laid on a level grade at Point of Pines, Mass. The locomotives utilized were secured from a railroad company which had discarded this type for heavier equipment, but they were not defective or disabled in any respect except that their cabs had been replaced. The weight of each engine, including tender, was about fifty tons and they were modelled after the same specifications, each having four 60-inch driving wheels and four truck wheels supporting the forward portion of the boiler. Prior to sending them together, steam was generated for two hours and the engines 'exercised,' to to speak, by moving them slowly up and down the track. Finally the boilers were subjected to as much steam pressure as the engineers demed safe and each machine was backed to its end of the line. The engineers took their places in the cabs and at the signal arranged each opened the throttle to the limit and pushed his lever to the full speed mark, then leaped to the ground.

"One engine attained a slightly greater momentum than the other engine. Consequently the point of contact was not midway between the terminals, but about three hundred feet distant, the advantage in start being given the engine showed on the right side of the illustration. It will be noted that when it struck, none of the wheels were lifted from the rails. The truck of the left engine, however, was forced above the track, and the front part lifted a foot or two. The shock also broke one of the steam pipes leading into the cab, which accounts for the jet of steam shown in the picture. It will be noted that the cab of the right engine was torn from its fastenings by the blow, although the other cab was uninjured. A curious feature of the collision was that after the first impact there appeared to be a rebound, the engines then closing up again and the right engine slowly forcing the other backward.

"The locomotives remained in motion for about three minutes after the impact, the one on the left being driven back nearly fifty feet from the point where they came together. An examination showed that its smokestack was torn away at the base and the front of the boiler broken so that the steam entirely escaped through this vent and the pipe in the rear in five minutes. In both cases the pilots were demolished as well as the forward woodwork of all kinds. The lantern standards, headlights, and all of the lighter ironwork, including hand rails, were broken and twisted beyond repair. The boiler of the right engine was also crushed in to such an extent that the steam escaped. Neither of the locomotives, however, was derailed, although the trucks were torn from their supports and the piston rods and cylinders dismounted as well.

"Although the actual speed of the engines at the time of contact cannot be calculated, the force was such that an iron bar weighing seventy-five pounds detached from one of the pilots, was thrown 150 feet to one side of the track, and such small pieces as bolts and nuts were found as far away as 300 feet. When the engines were started the whistle valve of each was opened. As soon as they met the shock shut off the whistle of the left engine, but that of the right continued until steam had been exhausted."

### WHAT THE SIAMESE EAT.

Siamese food principally consists of dried, frequently rotted, fish and rice, done into curries which comprise a little of about every kind of condiment, and especially a very popular sauce called namphrik, a chutney-like and thoroughly mixed thing made of red pepper, shrimp, garlic, onions, citron, ginger and tamarind seeds. The only reason for the fish being putrid is because the natives like it so, for fish are plentiful in the rivers and fishermen numerous, though their ways of catching are rather amusing and antique. One favorite method, borrowed from the Chinese, is beating the waters with long bamboo sticks to frighten the fish into an eight or ten foot squarish net, which is lowered into the river from a framework on the bank by a system of wheels and ropes and pulleys, and hoisted up again when the catch is complete. I must confess that when the fish in the curry chanced to be dried instead of decayed, I found the concoction decidedly toothsome. In fact, a really good curry is in a class apart, and one must go to India or the Far East to get it at its best. Sometimes the natives eat pork and oftentimes chicken, but for the most part rice and the fish curry constitute their chief diet, supplemented by the fruit of the country, of which there are many kinds—mangosteen, mango, pineapple, banana, orange, bread fruit, and that most healthful and serving of all Siamese fruits, the papaya, which grows back from the water and is a greenish oval emlon that suggests cantaloupe when opened. —(Outing.

## CHINESE INSULTS.

### *They Are Somewhat Subtle, Not to Say Silly.*

"The Chinaman, especially he of the higher and official class, has enveloped himself in a subtle and elaborate mesh of custom and etiquette, in which it is his delight to entrap the ignorant and unwary foreign devil," says "The King." "And the strangest thing about this Chinese propensity is that it is by no means necessary, in Chinese eyes, for the object of an insult to be aware of his position. It is enough for them that he is degraded henceforth in their eyes, and in those of all who are capable of appreciating the fact that he has been subjected to this species of moral degradation.

"It will be apparent, therefore, how extremely important it is that a Minister who is intrusted with the interests and prestige of his country in China should be thoroughly conversant with this insidious danger and vigilantly on his guard against all attempts to degrade his office and weaken his influence in the Far East.

"The very puerility of these Chinese insults tends to increase their danger. For, unless a European is sufficiently versed in their hidden significance to resent them immediately, his loss of face and caste is as great as though he had knowingly and tamely submitted to them. He is henceforth a subject for scarcely veiled contempt and derision, and a recognized target for Celestial fooling and levity.

"On the other hand, nothing confounds a Chinaman quite as much as when the object of his insidious attempt suddenly displays an acquaintance with the actual significance of the attitude adopted toward him. He becomes hopelessly disconcerted, and his respect is proportionately as great as his contempt would have been had he succeeded in escaping detection.

"The following story will afford an excellent idea of the Chinaman's inveterate insolence toward foreigners through the medium of his elaborate system of etiquette. I was calling on some English friends in Shanghai a few years ago. They had not long arrived from home, and were comparatively new to the country and its peculiarities. Among the numerous subjects of interest they had discovered in their novel surroundings they displayed for my inspection a Chinese visiting card which had been left upon them by a high class Chinaman a day or two before. It was of red paper, about four or five inches long by three in breadth, and printed with large Chinese characters.

"My friends expressed some pleasure at its possession, and I noticed that it occupied a prominent place in their collection. Moreover, from their account, their visitor had seemed a very amiable and genial gentleman.

"I somewhat startled my friends as I picked up their treasure by remarking: 'The brute! Did he have the insolence to leave this on you? Anyway, don't leave it about where it can be seen.'

"'Why, what is the matter with it?' they queried.

"Now, my friend occupied an official position under our government, which lent an additional importance to the matter; so I hastened to explain that their visitor's interesting red card, with its imposing proportions, was a pleasant little attempt to mark his contemptuous sense of their infinite inferiority to himself, and to indicate, in fact, that he was a much bigger man than my official friend.

"'Well, I don't care what the fool thinks,' observed the latter.

"'But in China you must,' I explained. 'If you accept that Chinaman's insolent estimation of you you will have lost caste forever in your future dealings with him, and every one, Chinamen, and possibly foreign rivals as well, who are aware of your loss of prestige, will not hesitate to attempt to take advantage of you. But at the same time you have a splendid chance of asserting yourself at once, and of establishing yourself at the outset in a position of corresponding superiority and advantage.'

"'But how can this be done,' he inquired, 'except by refusing to return the beggar's call?'

"'No,' I said; 'you must do that. It is part of your opportunity, and as soon as he realizes that, contrary to his expectation, you understand his etiquette and have seen through his action, he will be thoroughly disconcerted and crawl to you in future. You need do no more than simply leave upon him your own card, a good deal bigger in size than the one he left upon you, and with your own name printed in larger characters than his. That will finish him completely and absurd as it seems, little things are often big things in China, and you will place yourself in a better position to do good service to your country's interests than you could otherwise expect.'"

### FROG CULTURE BY MILLIONS.

The cultivation of frogs is a new industry, but it can be made profitable, as there are thousands of acres of swampland inPennsylvania, worthless, which could be utilized. About two million will be distributed in the State. Some of the applications received by the department are very amusing, and they will be stored away among the State archives. A New-Bedford applicant wants to know if the frogs "will flourish and do well in ponds that have been constructed for fish, but abandoned, or ponds that are made to cut ice off, as they are fed with clean water." A Breadysville, Bucks County, farmer asks for from ten thousand to fifty thousand frogs with which to stock Neshaminy Creek, which, he says, "seems to be run out of fish, so let us have some bullfrogs." A Tullytown man writes for a supply to stock "our millponds with, as they are excellent ponds for that purpose." A Philadelphia man writes to know if the frogs are green, and "if they will keep babies awake nights by their croakings." A Clearfield County man asks if the frogs are "good eating," and whether they are "real frogs or only hoptoads."—(Pittsburg Chronicle-Telegraph.

### SIZE OF AN ATOM.

How large is an atom? "Perhaps the simplest, though not the most exact, way of arriving at a rough estimate of the size of atoms is by measuring the thickness of a soap bubble film, where it is as thin as possible, just before it bursts," says a writer. "Such a film, if composed of atoms, must be something like a pebble wall. Now, a pebble wall would not stand if it were not several pebbles thick, and if we had reason to suppose that it was about a dozen pebbles thick, we could easily make an estimate of the size of the pebble by measuring the thickness of the wall.

"That is the case with the thinnest region of a soap film. It is found to have a very definite and uniform thickness. It is the thinnest thing known, and by refined optical means its thickness can be accurately measured. It must contain not less than something like a dozen atoms in its thickness, and yet it is only about the twenty millionth of an inch in thickness by direct measurement. So that the diameter of an atom comes out between one two-hundred-millionth and one three-hundred-millionth of an inch. In other words, from about 200,000,000 to 300,000,000 of atoms can lie edge to edge in a linear inch."—(Science.

### CRABS CAST UP BY THE SEA.

#### Thousands Gathered on the Beach at Mouth of Chesapeake Bay.

From What to Eat.

Soft shell crabs are as commonplace to the tidewater Virginian as are baked beans to the Bostonian; while the hard shell may be got at any time in Chesapeake Bay by means of a string with a piece of meat dropped overboard and a scoopnet.

But the most remarkable is an extravagance of the Atlantic that occurs, so the natives say, about three times a winter down at Cape Henry, at the mouth of the Chesapeake.

The icy condition of the water puts the crabs into a partially frozen and numbed condition, and if the wind takes a certain direction there are sure to be miles and miles of beach covered with masses of flat blue bodies and sprawling imbecile pink legs that stretch up helplessly into the air.

The first crabs coming in on the crest of a big wave excite little curiosity. Then the number steadily increases, the 100-yard beach at last becoming covered with crabs, seaweed, conch spawn, sea biscuit, sea hogs and the giant king crab. Finally the waves themselves are no longer waves of water, but literally waves of crabs.

Then the little settlement of government employes and the stray wood hermits and the darkies from "back in the desert" get to work. They hitch up their broad two-wheeled beach carts and work from morning till night gathering in the crabs, taking them to the station, seven miles away, where they are shipped to the markets or canning factories, and then come back for more.

At nightfall the lighthouse keepers, the weather bureau and signal men and the life savers have gone home, but the darkies up toward Lyn[illegible] are still at work.

Those that have no carts content themselves with burlap bags thrown over the shoulder, and some of them bring pitchforks to help disentangle the great masses of seaweed. Finally, the [illegible] crabs, lasting often for two or three days, [illegible] of sea gulls—gulls that measure three [illegible] tip to tip—swarm down upon the coast, [illegible] buzzard, with its savage beak, tears through the crabs' breastplate for the tender meat, and the hogs that run wild about the huts of the [illegible] make an end to this mammoth upheaval of the ocean which feeds so many.

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