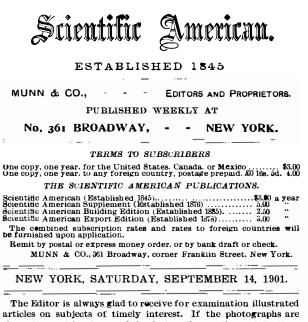
162



The Editor is always glad to receive for examination illustrated articles on subjects of timely interest. If the photographs are *sharp*, the articles *short*, and the facts *authentic*, the contributions will receive special attention. Accepted articles will be paid for at regular space rates.

#### THE ATTEMPT ON THE PRESIDENT.

The country has been appalled as it has not been since the attempt upon the life of President Garfield, in 1881, by the news that a similar dastardly outrage has been committed upon the person of the President of the United States. It is difficult to comprehend how it is possible for crime of this character to be perpetrated, or even contemplated, in a country in which the institutions are free and the independence of the individual is paramount. The only explanation of such an act seems to be that there is disease prevalent in the land; that such an act can only be conceived by a disordered brain. The problem, therefore, which not only confronts the people of our own country, but that of other nations, is how to protect the individual head of the government, be he monarch or be he president, from the act of the unbalanced mind. It has been a notorious fact for a long time that a neighboring city is the hotbed of anarchism, and whether it is proved or not that the assassin is a member of this particular group of men and women is immaterial, so long as the fact remains that he is an avowed member of this despicable brotherhood. The professional anarchists in this country have almost without exception been of foreign birth. If the family history of the individuals forming this body of malcontents could be traced, it is probable that they would prove to belong to a class of unfortunates who have passed through generations of poverty, depravity, and perhaps oppression, with the result that they have, perhaps, inherited a bent of mind which is distinctly abnormal. It is possible, even probable, that such a bent would not be recognized by the psychologist, the medical student, or the alienist as a distinct form of mental disease. When the mind reaches the point of depravity at which it is unable to distinguish the difference between right and wrong-nay, more, that it mistakes wrong for right, even to the point of conceiving the murder of an innocent and unoffending individual to be an act of heroism-what further proof do we need of mental aberration?

It is against the spirit of our country and also of the times in general to curb or to punish the individual for holding opinions, even though these opinions may seem unhealthy, even dangerous. It has always been the policy of our institutions to allow freedom of speech in the broadest sense; that is to say, it has been our custom always to recognize freedom of speech in the rational being. If, however, a lunatic endeavors to incite his neighbors to murder or to arson, we cease to consider his act "freedom of speech," and we promptly place him out of harm's way within the walls of an asylum. Why not treat He is equally the anarchist in the same manner? dangerous to the individual and to the community. He cannot be restrained by fear of punishment, or even of death; he cannot be reached by the ordinary channels of reason; his mind is incapable of following the dictates of reason and arriving at a logical conclusion; his heart, in like manner, is hardened as against the ordinary human sympathies. By what channel, therefore, can this individual be reached? If this question cannot be answered, then why should he not promptly be treated as any other dangerous lunatic?

# Scientific American.

ordinary lunatic and treated as such, and if the entertaining and the professing of such views as are ordinarily put forward by this peculiar sect were sufficient to stamp him as a proper subject for such treatment, surely the romance would soon disappear, and perhaps we would have discovered the speediest method of curing this loathsome disease. There is no difficulty in reaching the individual after the crime has been committed, but the disease is too serious in its nature to admit of our expecting a cure through any post-mortem treatment. The disease must be grappled with in its infancy. It must be strangled before the germ has been allowed to spread and attack the body politic. It is difficult to see how, therefore, the question may be met unless the anarchist is looked upon in the eyes of the law as the victim of insanity, and is treated accordingly.

#### 

#### "COLUMBIA "-TWICE A CUP DEFENDER.

The Challenge Committee of the New York Yacht Club, after witnessing a score of trials between the "Columbia" and the "Constitution," and as the result of a careful review of the respective performances of the two yachts in these trials, have reached the unanimous conclusion that the "Columbia" is better qualified, as matters now stand, to meet the very able challenging yacht, "Shamrock II."

This decision, although it was foreseen many weeks ago by all yachtsmen who have judged the work of the two boats dispassionately, will be the cause of keen disappointment to the public at large, who have become so used to seeing each new cup champion beat its predecessor that they will find it hard to accept the momentous decision of the Cup Committee without a murmur. Indeed, we notice that already one of the New York dailies has begun an agitation against the selection of "Columbia," and is thereby incidentally doing scant courtesy to the gentlemen who have given so much time and thought to the selection of a defender. Even if there were the slightest doubt as to "Constitution's" inferiority in her present formwhich there is not-the mere promptings of decency should prevent any suggestion that the New York Yacht Club is sending any but its best boat against the challenger. We shall probably hear from the armchair critics at frequent intervals between now and the cup races; but we trust that they will fail to convince the American public that an editor sitting at his desk is a better judge of a yacht's performances than the committee of experts who have followed the boats over every course on which they have hoisted canvas.

A few prominent yachtsmen have been quoted, probably with no little inaccuracy, as saying that "Constitution" is the faster boat. It is ilikely that what they did say was that, if there were time to bring her up to pitch, she could be made a faster boat. In this we cordially agree; but as matters now stand, there is no time left for such experimentation, and it is rightly judged that such a thoroughly tuned-up boat as "Shamrock II." had better be confronted by a yacht of equally well-known capabilities, rather than by one whose performance is erratic and whose best speed may not be forthcoming when it is most wanted.

As a matter of fact, for the first time in the history of the cup contests, we, on this side of the water, are laboring under one of the many serious handicaps to which the visiting yacht has been subjected; for it is a certain fact that in the last four or five contests the cup challenger, for lack of time to make the necessary tuning-up tests, has come to the starting point a practically untried boat. The most erratic performance of "Shamrock I." in 1899 suggests that she was in much the same predicament as "Constitution" is now in 1901. It was realized on the eve of the races that her sail-plan was too large and her spars too light to hold it in shape; while the heavy lee helm which she carried suggested that the boat was badly out of balance. Had there been another six weeks available for making the necessary changes, there is no doubt that that boat could have been brought up to a pitch of excellence at which she would have made a very worthy competitor for "Columbia." Were a few weeks more available for the same experimentation with "Constitution," no doubt a similar improvement could be made in that boat. As it is, she is quite out of the question as a cupdefender. As to the probable outcome of the races, we think that the cup is in very good keeping, and that the successful defense of two years ago may be repeated. "Shamrock II." has beaten "Shamrock I." by nine minutes on a 30-mile course, but "Columbia" has heaten the same hoat by over ten minutes in the same distance. "Shamrock I." has been improved, it is believed, fully five minutes, over the cup course; but everybody who has watched the work of "Columbia" this season is satisfied that she also is several minutes faster than she was two years ago. We are able to state, on the best authority, that in light airs "Shamrock II." shows practically no superiority over "Shamrock I." and that it is only when there

### SEPTEMBER 14, 1901.

is some heart in the wind that she begins to pull away from the older boat. On the other hand, "Columbia" beat "Shamrock I." by over ten minutes, when the strength of the wind was only from 6 to 10 knots an hour. Hence, in light breezes which would enable the yachts to get over the course barely within the time limit of  $5\frac{1}{2}$  hours, we look upon "Columbia" as a certain winner. On the other hand, in breezes of 12 knots strength and over, we thunk that the extraordinary reaching and running qualities of "Shamrock II.," due to the great refinement of her form, will give her the race.

On the question of handling, we cannot see that there will be much advantage on either side. The masterly way in which the skipper of "Columbia" has sailed his boat in the present season proves him to be a worthy competitor against the celebrated amateur yachtsman who will sail "Shamrock II." off Sandy Hook.

## A TIMELY WARNING.

The recent disclosures of the financial embarrassments of a certain famous liquid air company, which is just now very much in the public eye, prove that the persistent warnings which were given in the columns of this journal many months ago, when liquid air speculation was at its height, were fully justified by the facts. We pointed out at the time that the claims made for liquid air as a profitable source of power were based upon certain fundamental fallacies, which prevented this fluid from having much value or interest outside of the laboratory and the lecture room. In its present form as a prime mover, competing with the steam engine and the hydraulic turbine, it was doomed from the very first.

We are extremely sorry for those investors who have been caught by the alluring literature of the promoter, and are just now waking up to the fact that fat dividends are not to be distilled from liquid air. At the same time we believe that the prompt exposure of the underlying fallacies of some of the claims put forward in connection with the company which is now in financial straits has served the good end of preventing the investment of a vast amount of hard-earned money by that very section of the public which can least afford to lose it. Gratifying proof of this has come to hand during the past few days from several correspondents who have assured us that but for the explanation of the principles and limited commercial possibilities of liquid air given in our columns, they would have invested in one or more of the many wild-cat schemes which were floated by the professional promoters at that time.

## TARGET PRACTICE AT ALDERSHOT.

An improved system for the purpose of developing practical musketry training has been adopted by the English military authorities at Aldershot. By means of ingenious targets electrically actuated, as near an approach as possible to actual warfare was obtained. The troops participating in the trials of the new apparatus were distributed upon one range of hills. On crests opposite, rattles of musketry were observed and along the skyline heads appeared and disappeared at regular intervals representing an enemy taking aim and firing. This afforded the target for the soldiers and discharges of musketry greeted the heads of the pseudo-enemy whenever they appeared. The attacking party then cautiously advanced toward the defended crests. Through the valley extended a railway which the enemy was zealously guarding. As the advancing foe reached the railway an armored train appeared and was subjected to a heavy fusillade. In its rear followed a cavalry patrol bent upon blowing up the line, and they were also subjected to a heavy rifle fire, completely riddling them, though they effected their object in the destruction of the line as the electrical explosion of a dynamite charge testified. The signal cabin to the right of the railway, which contained several men, was then riddled, and a farmhouse which concealed a large number of the enemy was also bombarded. Heads appeared at every window and a soldier presently ran out of the door with a gun. The soldiers continued their advance until arrested by a heavy fire from artillery concealed in a dense clump of trees. The effect of discharging shells was most cunningly contrived by the explosion of bombs near the dummy guns. The scheme was carried out by means of electric wires laid beneath the turf, and controlled by an engineer, who followed the movements of the troops by means of an arrangement of mirrors suspended over his head, in a butt. When the maneuvers had been satisfactorily carried out the targets were carefully examined, and it was discovered that the firing of the soldiers had been Darticularly accurate, many of the targets being completely riddled. Further experiments are to be carried out with this combination of electrical targets, and it is stated that they will supersede the old types, since it is found to improve the firing capacity of the men to a very appreciable extent.

Such a course of treatment seems to appeal specially to our idea of common sense, for the anarchist is often consumed with vanity or filled with a love of notoriety, or with a desire to make his name immortal, or to pose before his neighbors as a martyr; in fact, there are many reasons which tickle his pride and make him willing to endure death in carrying out what he calls "his duty." But if such an individual were regarded in the eyes of the law as an