

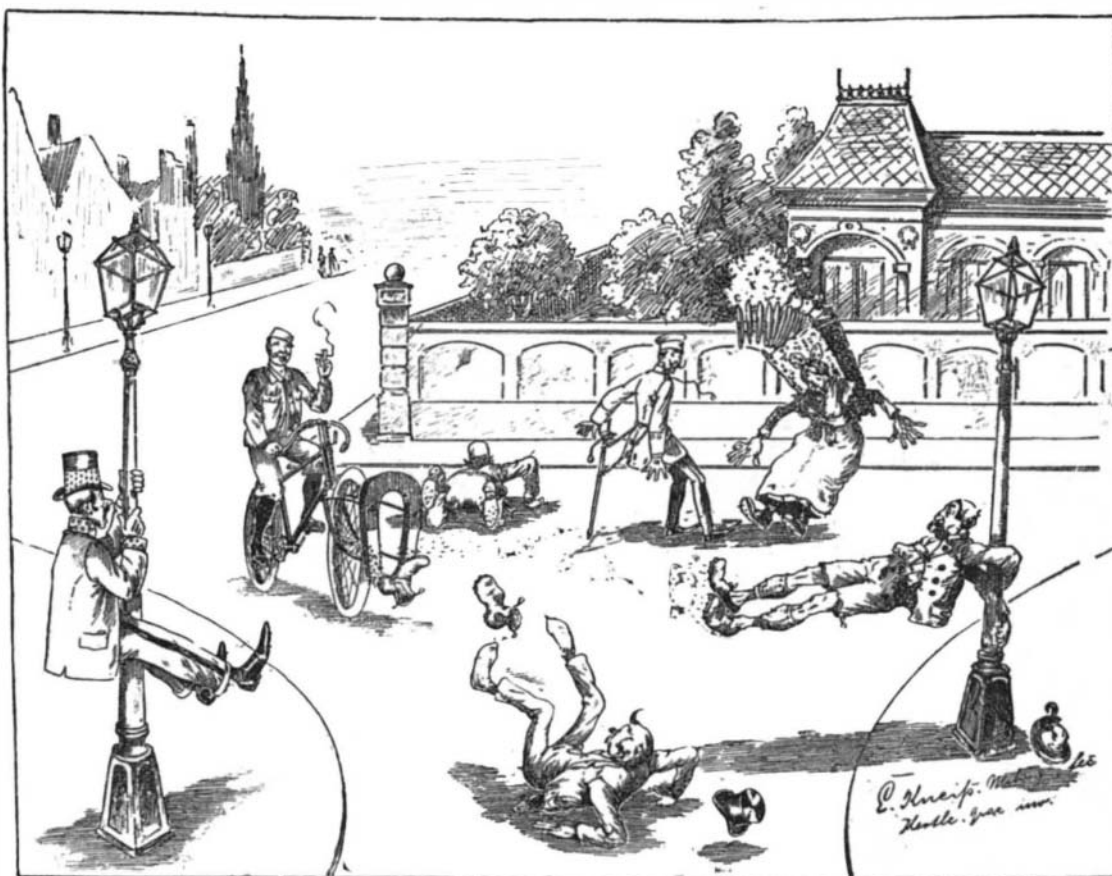
Students as Conductors in Philadelphia.

The Electric Engineer says that "during the past summer between 30 and 40 students of Jefferson Medical College, the Philadelphia College of Dentistry, the University of Pennsylvania and other colleges in this city obtained employment as conductors on the cars of the People's Traction System of Philadelphia. All of the young men came from outside the city, and were working their way through college. The last of them handed in their resignations last week, which the company accepted with regret, for the young men had proved to be the best conductors in its employ. An official of the company said the students were thoroughly honest, intelligent and polite, and as their desire was to earn as much money during the summer as possible, they were always willing to work extra hours and take out special cars. They lived economically and have probably saved something like \$130 each, which will go a good way toward paying their college expenses next winter. One of the students has almost concluded not to go back to college, he likes railroading so well, and is still in the employ of the company."

THE MAGNETIC BICYCLE.

In some parts of the country there are malicious persons who throw tacks in the roadway to annoy bicycle riders by perforating the pneumatic tires. To meet this difficulty it has been proposed to attach a magnet in front of the forward wheel, with the object of picking up the tacks as the machine rolls along.

A caricaturist in one of the comic papers has made use of this idea in the accompanying sketch. Here the cyclist is represented as carrying such a powerful magnet that it not only picks up tacks, but even draws out the nails from the shoes of passers-by.



THE MAGNETIC BICYCLE.

Obstinate Thumping.

Sometimes an engine which usually runs well develops an obstinate pound or thump, which persists in spite of all the doctoring that can be done to the machine. In vain the engineer will go from the wrist pin to the cross-head, and from eccentric to bearing. Even the fly-wheel and the manner in which it is keyed upon the shaft will be investigated, to see if the thump is located therein. After all these things have been tried in vain, just give the engine a trifle more compression and note the result. Probably it will cure or make it worse. In the latter case change the valve again and give a little less compression than there was before. In nineteen cases out of twenty, says the Safety Valve, the change in compression will do the business. The philosophy of the business is this: The compression is too little or too great to allow the engine to run smoothly over the center; and at that point the piston gives a "yank," which causes wrist pin and connection and sometimes the main bearing to vibrate to the extent of the lost motion, forming the thump or pound, which is so objectionable to the good engine runner.

Should Your Boy Go to College?

Is a college course the best training for a boy designed for a business career? Upon this important question good judges differ. The editor of Munsey's, believing that those entitled to discuss this question with authority are rather the practical men of action than the theorists of educational science, has collected and presented the views of some of New York's leaders of affairs on this subject. In his introductory remarks the editor says:

"It might perhaps be thought that in the trial of such a cause each juror's verdict would depend upon his own personal history; that the college alumni would support the honor of their alma mater by voting for an academic training, while those who stepped directly from the school to the shop or office would advise others to seek business success by the pathway they themselves followed. This is, however, by no means invariably the case. There are university graduates—men who made good use of their time in the classrooms, and who went on to honorable places in the world—who question, nevertheless, whether those four formative years might not possibly have been spent to still better advantage. And on the other hand many if

not most of those who have gained success without a college course look back upon their early days with a regretful sense of having missed something that would have helped and benefited them all through life; of having entered the arena without a weapon which nothing can entirely replace, even though they win the battle with the arms at their command."

Mayor Strong thinks that while a college education is a good thing to have, it is far from being indispensable to the business man. He says that if he had to choose between two applicants for a position, the one a college-bred man and the other a smart young fellow with only a common school education, he should engage the first, if the post in view would warrant it, and provided the college man displayed an equal capacity for work. If the other applicant was found to be more active, more willing, he would prefer him. Mayor Strong concludes by saying:

"A college education requires the investment of a small capital and the expenditure of several years of study. The boy of natural talent, who enters business life when he leaves the public schools, begins to earn money at once; but it does not follow that the college man's time and money have been wasted. His increased broadness of vision, the greater extent of resources at his command, will equip him to contend with the exigencies of life, and to grasp the business problems that will confront him, with a surer hand, a clearer head, and more ready determination than his brother. The latter's advance in his chosen field will be steady, the result of unceasing labor. The college-bred man will gallop gracefully to the front, while the other's

thoroughly fit a boy for the battle before him than natural talent developed by a college education, and backed up by frugal habits."

One of the most conspicuous disbelievers in the university for the training of a boy for a business life is the well known banker, Henry Clews, who is reported as saying:

"Think of a man going into business with three-fourths of his brain cells filled with classical knowledge, dead languages, and high sounding but unpractical ideas!

"I have been severely criticised for saying that I would not have a college-bred man in my office. Here is my reason: To become a successful merchant, banker, or broker, one must begin young. Most college boys, when ready to enter an office, are over twenty years of age. I have a son at college—a six footer, in his twenty-first year. Can I ask him to undergo the training I deem necessary for every business man? Would he be willing to commence at the foot of the ladder, with boys of sixteen, and on a salary of \$150 per year? Why, that youth not only knows more, in every branch of knowledge, than all the office boys and clerks in this office; he knows more than his father, too.

"A collegian cannot, or perhaps will not, humble himself sufficiently to learn the rudiments of the business man's vocation. He rebels against the discipline necessarily imposed upon a subordinate. He has been used to regard himself as a brilliant young gentleman for several years; can you blame him for objecting to sit on the same bench with errand boys? And has

he enough practical knowledge to deserve a place behind the desk? In my opinion the average graduate does not even know enough of arithmetic and of caligraphy to earn, upon his arrival in an office, a salary of five dollars a week. My legible hand secured for me the first good position I ever held; the average college graduate writes a fearful scrawl, and is proud of it. I understand that none of our universities employs a teacher of caligraphy. This is a sad defect, of which the collegian does not become aware, as a rule, until it is too late to remedy the evil.

"I have practically tested the problem whether a college education is desirable for a business man. Years ago I employed several college men, one after another; none of them succeeded in benefiting either my business or myself. So I got rid of them. Of the boys who came to me equipped with nothing beyond a common school education, a sound mind,

and an ambition to work, dozens are now independent business men, while as many hold responsible positions with large firms."

A more moderate view is expressed by a member of the famous Seligman fraternity, who says that in his business he prefers men who have received a college education, but does not make employment conditional upon that fact. Although college alumni are comparatively scarce among the business men of the present generation, he believes that the next generation will abound with them, for in every walk of life the necessity of higher education is becoming more and more apparent. He thinks that while a man of sound mind and good habits will come to the front, whether he is college-bred or not, with equal gifts and with the same application the collegian will outstrip him in the race.

The article closes with the views of Mr. Chauncey M. Depew, from which we quote:

"While the world gives on its material side such examples of success as Commodore Vanderbilt and such instances of wise statesmanship and service to his country as Abraham Lincoln, we must remember that in the affairs of life no comparisons can be made with the phenomenally gifted who are endowed by the Almighty from their birth with powers far beyond the equipment of their fellows. With the business man who must be more than his vocation, the artisan larger than his trade, and the farmer more learned than in the traditions of his fathers, it is the trained intellect disciplined by higher education which alone has any certainty of success.

"This is not a modern thought, a new-fangled idea. American independence, and the founding of our

gait is slow and plodding, formed in the painful school of experience."

Similar ground is taken by Hon. Roswell P. Flower, who says that if he had a dozen boys, he would not send all of them to college, but would carefully select from the number those he judged to be best fitted for higher education, and the rest would have to get along as best they could with elementary knowledge. He had to make his own way thus insufficiently equipped, and while he is quite contented with his fate, he cannot help wishing sometimes that in his youth he had had better opportunity for developing his natural ability. Mr. Flower invites a glance at the careers of some of America's great intellectual leaders of the past who had no college education, such as Clay, Douglas, and Lincoln. He says:

"I think a college education the greatest boon that can fall to the lot of a boy endowed with a clever and active mind and a wholesome thirst for knowledge. However humble a man's station in life, knowledge will enrich him in the long run, one way or another. At the same time a university training is not essential to success in business life. Moreover, I should hesitate to advise a parent to send even the brightest boy to college if I was not quite sure that he could withstand the temptations sure to be offered to him there. There is too much luxury about our present-day college life. . . . Very few of the business men and politicians of the older generation were college-bred; the majority of those who are leaders in the commerce and industry of to-day, too, have achieved success upon a basis of a common school education; but the desirability of a university course is becoming more and more apparent as the struggle of life sharpens. Nothing will more

