What Geometry will do for a Boy.

BY PROF. W. A. HOWRY.

Now, boys, let us have a little talk about geometry. You know it has been a famous study for boys for many ages. Euclid was an old Egyptian, who lived about three hundred years before Christ. His treatise on geometry has been the foundation for all modern works upon the subject. Plato, who lived a century earlier, founded a noted academy at Athens, and it is related that over its entrance he placed the celebrated inscription, *Let no one ignorant of geometry enter here.*

This branch has been considered an important part of a good education for two thousand years. Yet I hear many boys in these days saying, " I don't like geometry. I wonder what good it will do me."

I once heard a very interesting story about Abraham Lincoln, which may help you to understand the "good." Before Mr. Lincoln was a candidate for President, he made a tour through New England and lectured in many cities and towns. Among other places he spoke in Norwich, Ct. A gentleman who heard him, and was struck with his remarkable logical power, rode the next day in the cars with Mr. Lincoln to New Haven. During the ride the following conversation took place :

" Mr. Lincoln, I was delighted with your lecture last evening."

" Oh, thank you, but that was not much of a lecture ; I can do better than that."

" I have no doubt of it, Mr. Lincoln, for, whoever can do so well must inevitably be able to do better."

" Well, well, you are a good reasoner, are'nt you ? That is cute."

" But that reminds me," continued the gentleman, " to ask how you acquired your wonderful logical power. I have heard that you are entirely self educated and it is seldom that I find a self-educated man who has a good system of logic in his reasoning. How did you acquire such an acute power of analysis ? "

" Well, Mr. G., I will tell you It was my terrible discouragement which did that for me."

" Your discouragement—what do you mean ? "

" You see," said Mr. Lincoln, " that when I was about eighteen years of age I went into an office to study law. Well, after a little while I saw that a lawyer's business was largely to prove things. And I said to myself, 'Lincoln, when is a thing proved ?' That was a poser. I could not answer the question. What constitutes *proof* ? Not evidence, that was not the point. There may be evidence enough, but wherein consists the *proof* ?

" You remember the old story of the German, who was tried for some crime, and they brought half a dozen respectable men who swore that they saw the prisoner commit the crime. 'Vel, replied the prisoner, 'vat of dat ? Six men schwears dot dey saw me do it. I prings more nor two tozen goot men who schwears dey did *not* see me do it.'

" So, wherein is the proof ? I groaned over the question, and, finally said to myself, 'Ah, Lincoln, you can't tell.' Then I thought, 'What use is it for me to be in a law office, if I can't tell when a thing is proved ?' So I gave it up, and left the office and went back home, over in Kentucky."

" So you gave up the law ? "

" Oh, Mr. G., don't jump at your conclusions. That isn't logical. But really, I did give up the law and I thought I should never go back to it. This was in the fall of the year. Soon after I returned to the old log cabin, I fell in with a copy of Euclid. I had not the slightest notion what Euclid was, and I thought I could find out. I found out, but it was no easy job. I looked into the book and found it was all about lines, angles, surfaces, and solids. But I could not understand it at all. I therefore began, very deliberately, at the beginning. I learned the definitions and axioms. I demonstrated the first proposition. I said, that is simple enough. I went on to the next and the next. And before spring I had gone through that old Euclid's geometry and could demonstrate *every proposition* like a book.

" I knew it all from beginning to end. You could not stick me on the hardest of them. Then in the spring, when I had got through with it, I said to myself, one day, 'Ah, do you know now when a thing is proved ?' And I answered right and loud, 'Yes, sir, I do.' 'Then you may go back to the law shop.' And I went."
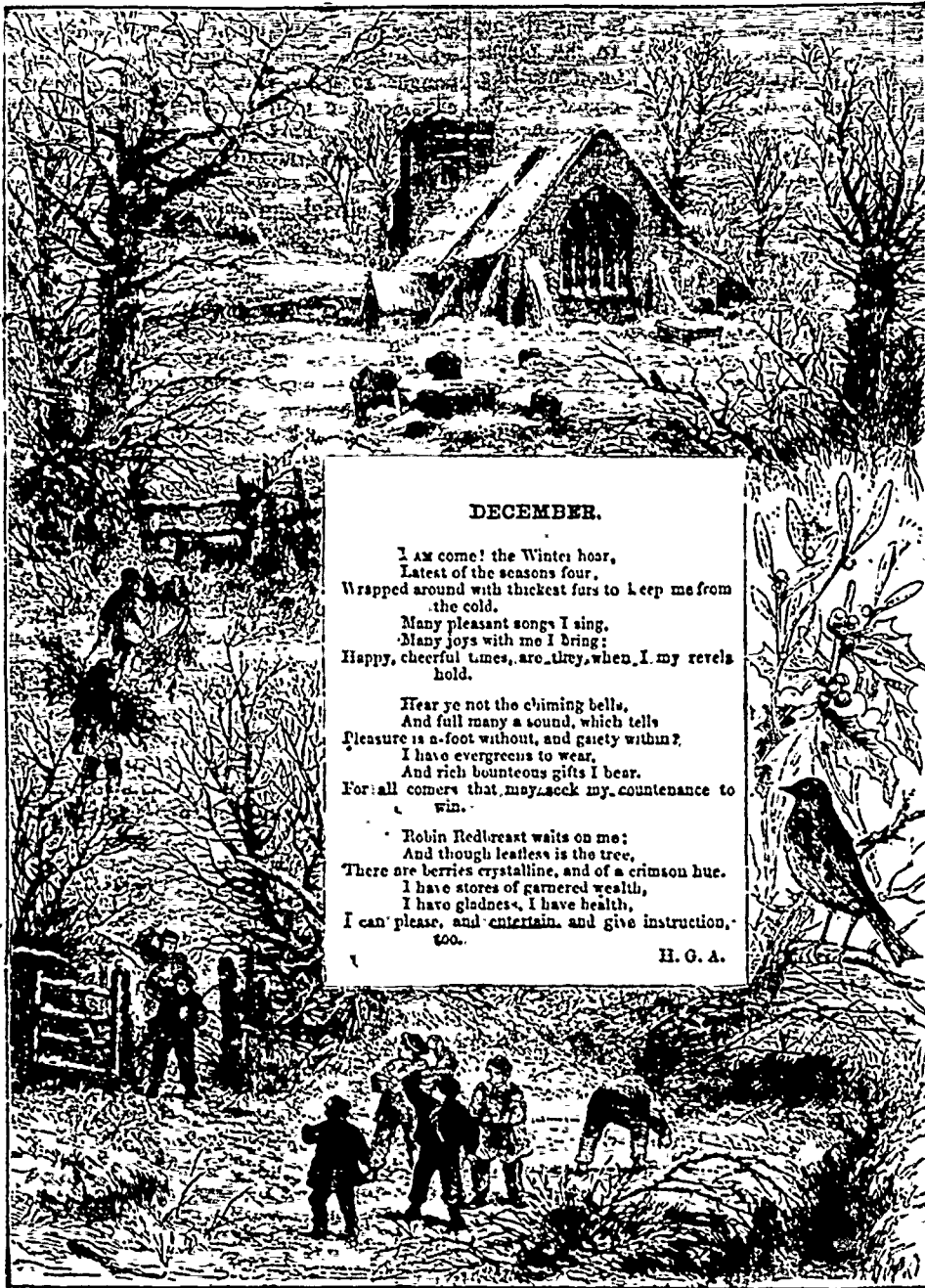
" Thank you, Mr. Lincoln, for that story. You have answered my question. I see now where you find your logical acumen, you dug it out of that geometry."

" Yes, I did, often by the light of pitchpine knots. But I got it. Nothing but geometry will teach you the power of abstract reasoning. Only that will tell you when a thing is proved."

Said Mr. G., " I think this a remarkable incident. How few men would have thought to ask themselves the question, When is a thing proved ? What constitutes proof ? And how few young men of eighteen would have been able to master the whole of Euclid in a single winter, without a teacher. And still fewer, after they had done so much, would have realized and acknowledged what geometry had done for them ; that it had told them what proof was."

So, my young friends, you may perhaps see by this incident what geometry will do for a boy.—*The Congregationalist.*

DECEMBER.

I am come ! the Winter hoar,
Latest of the seasons four,
Wrapped around with thickest furs to keep me from
the cold.
Many pleasant songs I sing,
Many joys with me I bring:
Happy, cheerful times, are they, when I my revels
hold.

Hear ye not the chiming bells,
And full many a sound, which tells
Pleasure is a-foot without, and gaiety within ?
I have evergreens to wear,
And rich bounteous gifts I bear.
For all comers that may seek my countenance to
win.

Robin Redbreast waits on me;
And though leafless is the tree,
There are berries crystalline, and of a crimson hue.
I have stores of garnered wealth,
I have gladness, I have health,
I can please, and entertain, and give instruction,
too.

H. G. A.