

substances, are one and the same thing. He tied an iron key to his kite, flew it near a storm-cloud, and attracted the lightning; whence it was said of him, with more truth than of the old Grecian hero, Prometheus, that he had stolen fire from heaven. The story—which is quite true—shows you how great works may be accomplished by means of play-things, in the hands of thinking men. If you be fond of science, you may yet make discoveries, or at least interesting experiments by fastening registering thermometers, and other scientific instruments, to your kite. It would be curious to notice how and in what degree the air is altered at a distance of half a mile from the earth.

Other amusing uses may be made of the kite. They say that Franklin used to make his kite—which was a very large one—tow him across a stream, by lying down in the water and holding the string. Other men are said to have travelled on land in the same way; using kites of enormous size, and flying them on very windy days. A large kite, on a gusty day, will either break its string, or pull its owner off his legs, if it be not carefully managed. In olden times, a lantern tied to the tail of a kite, which was flown at night, was often used as a signal by smugglers and other persons in danger.

MAKING A NEEDLE.

Needles are made of steel wire. The wire is first cut out by shears, from coils, into the length of the needles to be made. After a batch of such bits of wire have been cut off they are placed in a hot furnace, then taken out and rolled backward and forward until they are straight. They are now ready to be ground. The needle pointer takes up two dozen or so of the wires and rolls them between his thumb and fingers, with their ends on the grindstone, first on one end and then on the other. Next is a machine which flattens and gutters the heads of ten thousand needles in an hour. Next comes the punching of the eyes, done by a boy so fast that the eye can hardly keep pace with him. The splitting follows, which is running a fine wire through a dozen, perhaps, of these twin needles. A woman with a little anvil before her, files between the heads and separates them. They are now complete needles, but they are rough and rusty, and easily bend. The hardening comes next. They are heated

in batches in a furnace, and when red-hot are thrown into a pan of cold water. Next, they must be tempered, and this is done by rolling them backward and forward on a hot metal plate. The polishing still remains to be done. On a very coarse cloth needles are spread to the number of forty or fifty thousand. Emery dust is strewed over them, oil is sprinkled and soft soap daubed over the cloth; the cloth is rolled up hard, and with several others of the same kind, thrown into a kind of wash-pot to roll to and fro for twelve hours or more. They come out dirty enough; but after a rinsing in clean water and a tossing in sawdust, they become bright and are ready to be sorted and put up for use.

"AN AXE TO GRIND."

ORIGIN OF THE TERM.—When I was a little boy, says Dr. Franklin, I remember one cold winter morning I was accosted by a smiling man with an axe on his shoulder. "My pretty boy," said he, "has your father a grindstone?" "Yes, sir," said I. "You are a fine little fellow," said he; "will you let me grind my axe on it?" Pleased with the compliment of the "fine little fellow," "O yes," I answered; "it is down in the shop." "And will you, my little fellow," said he, patting me on the head, "get me a little hot water?" Could I refuse? I ran and soon brought a kettle full. "How old are you and what's your name?" continued he, without waiting for a reply; "I am sure you are one of the finest little fellows that I ever saw—will you just turn a few minutes for me?" Tickled at the flattery, like a fool I went to work, and bitterly did I rue the day. It was a new axe, and I toiled and tugged till I was almost tired to death. The school-bell rang and I could not get away; my hands were blistered, the axe was sharpened, and the man turned to me with, "Now, you little rascal, you've played truant; scud for school or you'll rue it." Alas! thought I, it is hard enough to turn the grindstone this cold day, but to be called a little rascal was too much. It sunk deep in my mind, and often have I thought of it since. When I see a merchant over-polite to his customers, begging them to take a little brandy, and throwing his goods on the counter, thinks I, that man has an axe to grind. When I see a man flattering the

people, making great profession of attachment to liberty, who is in private life a tyrant, methinks, look out, good people, that fellow would set you turning a grindstone. When I see a man hoisted into office by party spirit, without a single qualification to render him respectable or useful, alas! deluded people, you are doomed for a season to turn the grindstone for a body.

ENGLISH GIRLS.—The English girl spends more than half her waking hours in physical amusement, which tend to develop, invigorate and ripen the bodily powers. She rides, walks, drives, and rows upon the water, runs, dances, and plays, jumps the rope, throws the ball, hurls the quoit, draws the bow, keeps up the shuttle-cock, and all this without having it pressed forever upon her mind that she is thereby wasting her time. She does this every day, until it becomes a habit which she will follow up through life. Her frame, as a natural consequence, is large, her muscular system is in better subordination, her strength more enduring, and the whole tone of her voice healthier. Girls, think of this.

NEW INVENTION OF HOBBY HORSE.—The rider rests his feet on two cranks in the axle of a pair of wheels and by pressing on these, as a rider does who rises in his stirrups, he revolves the wheels and gives motion to the horse. It is guided very ingeniously, by the reins being attached to a bit or piece of iron in the mouth, connected with rods leading to and directing a single hind-wheel at pleasure—so that the rider guides and uses the reins in the ordinary way. On a level, smooth, hard, surface, any child can use it to great advantage—the exercise being nearly the same as riding a pony.

NEVER HESITATE TO DO RIGHT.—If the most virtuous are those who pretend to have been strongly enticed by their vices before submitting, we could better say that the soldier, who suffered all the agony of terror, and finally fled before the enemy, is more worthy of esteem than the soldier who, without fear and without resistance, remained firm at his post. The bravest is he who does not hesitate before danger; the most upright he who does not hesitate to do that which is right.