

Ghosts and Haunted Houses.

In spite of the rigid suppression of everything regarded as superstitious which characterizes the present times, there are a number of traditions and half beliefs which still retain a wonderful vitality. The existence of those apparitions which are popularly supposed to choose the weird hour of midnight for their perambulations, and of those inexplicable manifestations which gain for a dwelling the unenviable name of being haunted, has been affirmed by persons of such undoubted veracity, and believed in by so many of unquestioned intelligence, that a movement has recently started in different parts of the country for the thorough investigation of the reputed phenomena, with a view of deciding whether they have any substantial foundation, or must be accredited to individual mental vagaries.

It must, however, be remembered that it is no argument in favor of their genuineness that these traditions are so universal, for Grimm and other students of comparative philology have shown that many of our best known nursery tales have elements in common with the folk lore of but distantly related people, and with these must be attributed to the ancestral store before the Aryan dispersion. It is unnecessary to say that we do not on this account believe in the existence and sad fortunes of an original Red Riding Hood, or in the exploits of an actual Jack the Giant-killer. And neither can we claim any additional respect for ghosts and similar apparitions because the earliest Aryan mother sent her child to sleep with stories of monsters or fairies, according as the infant had been naughty or good, while later mothers have drawn upon the traditional "man in the dark" to induce obedience. But the present investigators who are taking up this subject have manifested a neutrality which promises most interesting results, should any be reached. They are neither prejudiced by the antiquity of these supernatural entities, nor so far incredulous as to dismiss the whole matter with a contemptuous denial. Viewed thus dispassionately, ghosts and haunted houses form an excellent subject for scientific investigation. At the present time, two cities in particular are holding these popular but still fascinating terrors up to the light of day, and we dare say that in a number of other localities similar societies are investigating their claims to recognition with equal rigor.

In Boston, the American Society for Psychological Research has appointed a special committee on apparitions and haunted houses. A circular has been issued, inviting communications from those whose experience may enable them to be of assistance in the examination. They desire information, in the first place, regarding reported cases of apparitions of the absent or dead. From time to time, such accounts have been published, giving all the details of the occurrence, and a great deal that would be of immense interest could it be verified. These supernatural appearances are often reported as foretelling future events, usually of a disastrous nature, such as illness or death, and the committee is particularly anxious to acquire all possible testimony in regard to cases where such premonitions have been intelligently recorded and have afterward proved true in whole or part. In addition to these more dramatic spectacles, there is a large class of personal experiences, such as presentiments in connection with material appearances, and the like, which would be of undoubted interest in such an investigation. The testimony of persons who have had these experiences themselves, or have had an opportunity to record the experience of others, is of special value. In making such records, it is important to state the age, occupation, temperament, condition of health, and other personal factors which would be apt to influence the result of such an experience, together with the appearance, circumstances of time and place, duration, etc., of the supposed apparition. It is also of great importance, where any warning is thought to have been conveyed, to know whether it was recorded before verification, in order to give as little play to the imagination as possible. The committee, as we have stated, undertake this investigation without preconceived prejudices. Being very bright people, they cannot help having their own opinions, and it would be safe to say that the majority are without belief in such appearances; but they wish simply to hear and examine the facts, and are pledged to draw from them such conclusions as are warranted by the evidence. They invite the co-operation of persons similarly earnest and unprejudiced. Col. T. W. Higginson, Cambridge, Mass., is one of the committee. A limited time will also be devoted to the personal examination of houses in the neighborhood of Boston which are reported to be haunted.

In Philadelphia, an analogous though less open investigation is now in progress. Some years ago, Mr. Seybert, the donor of the new bell for Independence Hall, was the victim of severe imposition at the hands of several over-thrifty "mediums." At his death he left a sum of money to the University of Pennsylvania on the condition that it should thoroughly investi-

gate the claims of spiritualism, and make the results public. The committee entrusted with the task has been collecting testimony on this point for a number of months, but no results, we believe, have yet been published. It is to be hoped that their labor will shortly be completed and their conclusions made public.

WHO INVENTED THE RATCHET BRACE?

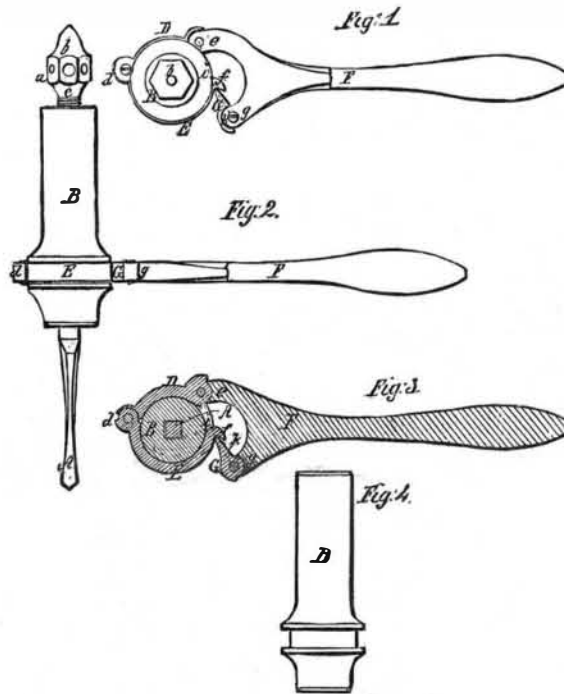
This question is asked in a recent number of the *Engineer*, London, by a correspondent who writes to the editor as follows:

"In the *Mechanics' Magazine* for September 5, 1835, there is a sketch of 'a simple drill,' said to be the invention of a workman in Mr. Hague's manufactory. Hague was a well known engineer half a century ago, his shops being somewhere near the Tower, I think. I send a reduction of the sketch, and should like to know whether this is the first ratchet brace.

The date of the introduction of that useful tool may be within the recollection of some of your older readers, and it may also be possible to preserve the name of the inventor.

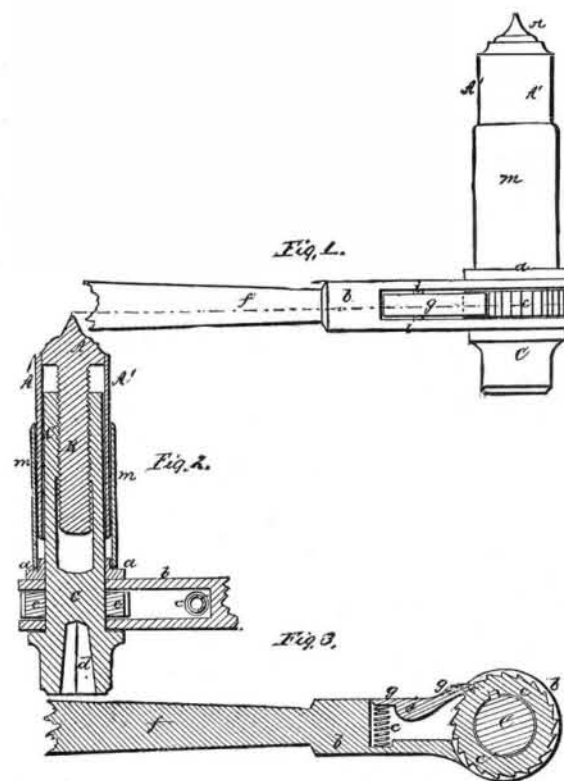
In this country the earliest patents granted on drills of this kind were the following:

John Johnson, of Somerville, Mass., patent No. 5,894,



JOHNSON'S DRILL, 1848.

dated October 31, 1848.—A exhibits the drill and B the stock or drill holder. The latter is made with a socket in one end to receive the drill. It has also a screw, C, adapted to the other end, and made to screw in and out of the same, the said screw having a bend, a, and a



PACKER'S DRILL, 1858.

conical projection, b, on the upper end of it; the said projection serving for a center to steady the drill. The stock, B, is made with a suitable groove turned around in it to receive two friction bands, D E, which are jointed together, as seen at d. The band, D, is jointed

to a projecting arm, e, of a forked lever, F, while the band, E, has a hooked end against which a small toggle rests and bears. The said toggle is jointed to another or short arm, g, of the lever, F, the whole being arranged as shown. The joint of the toggle is so made as to prevent any outward movement of the toggle (that is to say, a movement of it toward the stock) beyond about a right angle to the arm to which it is attached. The said movement, however, when the toggle is borne against the hook, f, must be sufficient to allow the two friction bands, D E, to move freely around upon the stock without any bind or friction, such as will cause it to rotate forward with the lever, F, when said lever is moved in a direction away from the person who grasps it. The joint of the toggle should also be constructed in such manner as to allow the toggle to move toward the inner end of the lever. Now, if the drill be placed in position, a movement of the lever toward the operator causes the toggle to so act against the hook of the friction band, E, as to draw or force the two bands, D E, toward one another, and causes them to firmly grasp the drill stock with a degree of friction sufficient to rotate it and the drill with the further movement of the lever. The retraction or reverse movement of the lever will cause the friction bands to loosen their hold upon the stock, so as to permit the lever to be moved forward to the extent required without creating any corresponding rotation of the drill stock.

Henry H. Packer, of Boston, Mass., patent No. 20,728, dated June 29, 1858.—C is the screw barrel, the upper end of which is bored out and tapered to accommodate the screw, B, the lower end being so constructed as to have formed therein a socket for the reception of a drill. The head of the screw, B, is conical at top, as seen at A, forming a pivot, and has projecting from its perimeter downward a shell, A', which (when the screw, B, is at its lowest point in the barrel, C) entirely surrounds said barrel its whole length. C' is a ratchet wheel, which is keyed on to the lower end of the barrel or drill stock, c, and rotates in an eye or slot formed in the spindle stock, b, for its reception; said ratchet is caused to revolve, carrying with it the band, C, screw, B, and shell, A', and any tool which may be secured in the shank at d. At every half stroke or every other vibration of the spindle stock, b, by means of the pawl, g, working in a pivot, i, and kept in gear with said wheel (at the proper times) by a spiral spring, e. The frame or stock, b; is furnished with a suitable handle, f, on the top of the stock, b; and surrounding the barrel, A', is a collar, a, from which extends upward a shell, m, surrounding the shell, A', the greater part of its length.

The operation is nearly similar to those already in use, and requires but little explanation. The whole mechanism is caused to partially rotate at every forward shake or vibration of the handle, F, by means as already described, while at every backward stroke the pawl, g, rides over the ratchet wheel, C, leaving the mechanism stationary. When it is desired to feed the drill, the screw, B, is turned by a simple key or lever fitting a hole in its head.

The Great Question of the Day.

The late Dr. Samuel D. Gross, the father of American surgery, used the following words in an address delivered at the dedication of the McDowell monument:

"Young men of America, listen to the voice of one who has grown old in his profession, and who will probably never address you again, as he utters a parting word of advice.

"The great question of the day is not this operation or that, not ovariotomy or lithotomy, or a hip joint amputation, which have reflected so much glory upon American medicine, but preventive medicine, the hygiene of our persons, our dwellings, our streets, in a word, our surroundings, whatever or wherever they may be, whether in city, town, hamlet, or country, and the establishment of efficient town and State boards of health, through whose agency we shall be more able to prevent the origin and fatal effects of what are known as the zymotic or preventable diseases which carry so much woe and sorrow into our families, and often sweep like hurricanes over the earth, destroying millions of human lives in an incredibly short time.

"The day has arrived when the people must be roused to a deeper and more earnest sense of the people's welfare, and suitable measures adopted for the protection as well as for the better development of their physical, moral, and intellectual powers. This is the great problem of the day, the question which you, as the representatives of the rising generation of physicians, should urge, in season and out of season, upon the attention of your fellow citizens; the question which, above and beyond all others, should engage your most serious thoughts, and elicit your most earnest co-operation.

"When this great object shall be attained; when man shall be able to prevent disease, and to reach, with little or no suffering, his threescore years and ten, so graphically described by the Psalmist, then, and not until then, will the world be a paradise."