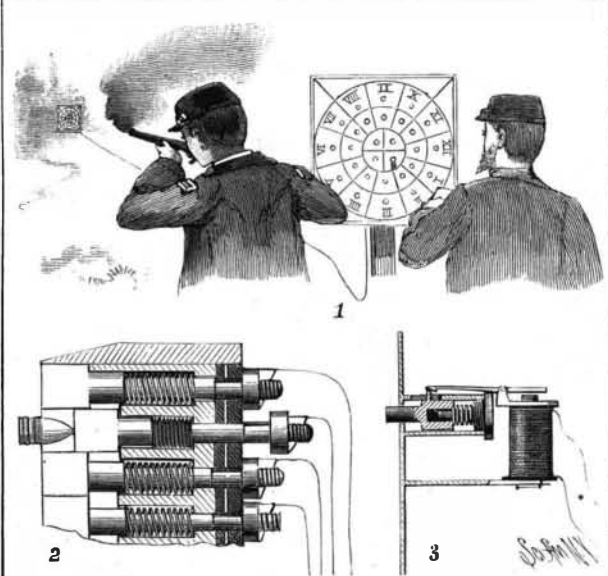


A DWELLING AT SPRINGFIELD, MASS.

Our illustration represents an admirably planned and picturesque residence, recently erected for Mrs. Samuel Woods, on Armory Hill, at Springfield, Mass. On all sides of the building there are many bits of detail that are of interest, especially the bay windows and tall chimneys, which are an architectural feature in themselves. The under-pinning and all stone work shown in the engraving is built of rock-faced sandstone of a reddish brown color; the remainder of the building is sheathed, papered and covered with cedar shingles, and stained a reddish brown. The western gable is carried out in the "Old English" half-timbered style, with the panels filled in with stucco work. Roof is covered with shingles and stained sienna. The building has an extreme frontage of 55 ft. 10 in. by a depth of 66 ft. 3 in. The cellar is 8 ft. in height, while the first story is 10 ft.; second, 9 ft.; third, 8 ft. 6 in. Vestibule, trimmed with quartered oak, has a large "Dutch" door, filled in with beveled plate glass. Hall is trimmed with similar wood. It has a paneled wainscoting and ceiling beams, forming deep panels. The staircase is a very handsome one, built of quartered oak. It has a massive carved newel and an octagonal projection thrown out at first landing, with windows glazed with delicate tinted glass, shedding a soft and pleasant light over upper and lower halls. The fireplace has a massive oak mantel, with hearth and facings of Anderson brick. Reception room, trimmed with cherry, is separated from hall by Colonial columns extending to ceiling, with carved capitals, etc. Drawing room is trimmed with red mahogany. It has a large bay window with seats, and a fireplace built of Tiffany brick and furnished with a mantel of excellent design. Dining room is large, well lighted and provided with a buffet carved in an exquisite manner, and a mantel of English oak extending to ceiling. This dining room has also a paneled wainscoting and ceiling beams. The floors are of oak and are highly polished. Rear hall and servants' staircase is a private one from cellar to third floor. The butler's pantry has a counter shelf of Italian marble and other shelves inclosed by glass doors. Kitchen and its apartments are wainscoted and trimmed with white wood, finished natural. There are five bedrooms, study and bathroom on second floor. Some of these apartments are trimmed with cherry, while the others are treated in delicate colors. Bathroom is wainscoted and trimmed with ash, and it

is furnished in the best possible manner. There are three large bedrooms on third floor, besides ample storage. Cemented cellar contains laundry, furnace and other necessary apartments. Mr. Francis R. Allen, architect, No. 220 Devonshire St., Boston, Mass.

Our engravings were made direct from photographs of the building, taken especially for the Architects and Builders Edition of the SCIENTIFIC AMERICAN. The



SCHIFFERDECKER'S TARGET AND INDICATOR.

number containing this view has also the elevation printed in colors and also a plan of the interior. Copies may be ordered from this office. Price 25 cents.

AN INDICATOR TO FACILITATE TARGET PRACTICE.

The illustration represents an arrangement whereby an indicator dial at the shootingstand is so connected electrically with the target that the exact effect of each shot may be at once seen on the dial, without the necessity of inspecting the target. The improvement has been patented by Mr. Charles Schifferdecker, of Fort Assinaboine, Montana. The target is arranged in a holding frame, and is divided into radial sections, the bull's eye consisting of four sections. These sections are filled with push buttons, which form the face of the target, and have rearwardly projecting bolts, each en-

circled by a spiral spring, as shown in Fig. 2. In the rear end of each bolt is a conducting plate, from which a wire leads to one pole of a battery including in its circuit one of the magnets of the indicator dial, the different wires from the target being preferably united to form a cable. The indicator dial, located near the shooting stand, is divided into sections corresponding to those of the target, and numbered consecutively from I to XII, like the dial of a clock, whereby the score of a shooter may be readily reckoned. Behind each section of the dial is a tube with a spring-pressed sliding plunger, as shown in Fig. 3, and a pointer which protrudes from the face of the dial when the plunger is released. The plunger with its pointer is normally held in retracted position by a catch on an armature lever, as shown in Fig. 3, but when the magnet is energized by the closing of the circuit, which occurs when one of the push buttons of the target is forced backward by the impact of a bullet, the plunger is released and slides forward so as to display the pointer, showing in which section of the target the bullet has struck. If desired, an electric bell may be included in the circuit, so as to ring at the same time the pointer is displayed.

Powerful Gunnery.

In a test of projectiles against old armor plates (not Harveyized) on the 23d of June last, at Indian Head Proving Grounds, some astounding results were obtained. A 13 inch Carpenter projectile, weighing half a ton, went clear through a 17 inch nickel-steel plate with its customary backing. Another, after plowing through the sand butts, against which the plate was bedded, was finally recovered unbroken, and to all intents as good as new, in the woods 500 yards away.

A Wheeler-Sterling shell of the same dimensions was also fired, under similar conditions, piercing the plate and backing and going into the butts, whence it has not been recovered; so it is not known whether it received injury. This remarkable performance of two shells, furnished by different makers, shows what a tremendous engine of destruction the United States has secured in its 13 inch gun, which has rather aptly been christened the "Peacemaker." These shells weighed 1,100 pounds each, and it is thought that the Peacemaker could drive them through the greatest battleship ever built. The test was for the acceptance of fifty similar projectiles from each of the contractors.



MRS. SAMUEL WOODS' DWELLING AT SPRINGFIELD, MASS.