



WEST POINT OBSERVATORY—NORTH FRONT.

The sidereal clock, by Hardy, has a Bond break-circuit attachment, and is connected with the several instruments by wires and break-circuit keys. Besides these there are valuable portable instruments in the observatory, which loans them from time to time to topographical and surveying parties in our West and Northwest, or to stations of the Engineer Corps, like the one at Willett's Point, New York. Several valuable additions, including a Bond chronograph, theodolites, and sextants, have been made within the last two years.

The purposes of the observatory of the academy are most effectively secured by confining its workings to the end of educating the cadets in the knowledge and practical use of the instruments. During the spring months they are taken in parties of two, three, or four to receive such instruction, and are required themselves to make observations with each instrument, and reduce them. During the summer encampment a month is devoted to further instruction in connection with a field observatory at Fort Clinton, where they use a field transit, zenith telescope, and other instruments. Each makes his own records, and works out his results for the ordinary problems of time, latitude, longitude. Würdeman of Washington is constructing for this field observatory a new transit and zenith telescope.

Although the chief design of the observatory has been from the first to secure such proficiency in the cadets as would prove of

most value to them in the field work to which so many army officers are called, and although neither the professors nor their assistants, who are daily instructors in several other branches, can find time available for lengthened series of observations, still at different times valuable observations have been secured in the midst of pressing duties. Among these are those of Professor Bartlett on the great comet of 1843, published in the transactions of the American Philosophical Society, and recent observations under Professor Michie and his assistants, Lieutenant Bass and others, for determining the longitude of the observatory.

On five nights during September and October of 1873 exchanges of clock signals with careful observations were made between observers at West Point and the observatory of Harvard College. The observers then met at Cambridge to determine the difference in their personal equations. They anticipate from the careful reduction of these observations which is now in hand a very accurate determination of their longitude.

We regret to learn a new and serious difficulty in the way of the observatory and of the worthy professor who, in 1871, relieved Professor Bartlett as chief of the department. The West Shore Railroad Company having obtained from Congress the right of way across the West Point property, are running a tunnel which will strike directly under the mural circle tower. If this ne-