pays his attendant is but exacting, he who does not is a despot. 7. The physician who depends on the gratitude of his patient for his fee, is like the traveller who waited on the bank of a river until it finished flowing so that he might cross to the other side. 8. Modesty, simplicity, truthfulness! cleansing virtues, everywhere but at the bedside; there simplicity is construed as *hesitation*, modesty as *want of confidence*, truth as *impoliteness*. 9. To keep within the limits of a dignified assurance without falling into the ridiculous vauntings of the boaster, constitutes the supreme talent of the physician. 10. Remember always to appear to be doing something—above all when you are doing nothing. 11. With equal and even inferior talent the cleanly and genteely dressed physician has a great advantage over the dirty or untidy one.

Yours, etc.,

ARTZ.

## OUR NEW YORK LETTER.

*From our Special Correspondent.*

### DR. GIRDNER'S TELEPHONIC BULLET PROBE, WITH CASES.

NEW YORK, Oct. 18th, 1887.

The telephonic bullet probe, and induction balance, are two cleverly constructed little instruments for locating any metallic substance in the human body, and designed by Dr. Girdner, of this city, who, with the help of Prof. Bell of telephone fame, has perfected what bids fair to be an invaluable instrument in general, and particularly in military surgery. The induction balance is constructed on the plan that,—should perfect balance be established between primary and secondary currents from a battery, there will be perfect silence in an ordinary telephone receiver attached to the secondary current, and so the instrument is made up of these parts,—first, there is an ordinary six cell battery, to this is attached a rheotome which interrupts the current, which then goes to a coil, part of the adjusting coils, and then to another coil, part of the exploring coils, and then back again to the battery; this makes the primary interrupted current. The secondary current is generated by coils, one making the second coil of the adjusting coils, and the other forms the other half of the exploring coils. The wires from these are attached to the telephone receiver and make the secondary current. Now, if the exploring coils are perfectly balanced there is silence in the telephone, but if they are brought within three or four inches of any metallic substance, the balance is disturbed and a sound produced. To keep them perfectly balanced they are imbedded in paraffin in a wooden block with a handle, convenient to move about any part of the body. The adjusting coils are merely to check and adjust the exploring coils. To detect the foreign substance, the telephone is placed to the ear and the exploring block is gently passed over the suspected parts, and as soon as it comes near the metal there is heard a high pitched musical sound, gradually increasing until it is heard at its maximum at a spot directly over the foreign substance; this spot is called the *sonorous spot*. The sound is characteristic, and there can be no doubt that you are very near some metallic substance. You can count the nails in the floor or table with it, or discover metal anywhere within three and a half inches. And now, after finding the sonorous spot, the telephonic probe is brought into play. This is made up of a piece of flat steel, moistened and laid on the surface near the sonorous spot, to this is attached a wire, the other end of which is attached to any telephone receiver, while the probe or exploring needle is attached to the other knob of the telephone by another wire. Now it is complete. The tissues of the body form the battery fluid, the steel plate one element of the battery, the foreign metallic substance in the body the other, and when the probe or needle is thrust in at the sonorous spot, and comes upon the metal, a circuit is established, and there is a sharp "click" heard in the telephone. Touching bone or tissues has no effect upon it, so when the click is heard you know your probe is touching a metallic substance. Dr. Girdner has been experimenting for the last two years, and has relieved many an old army veteran of his interesting but painful memento of his soldiering days. It is merely an interesting coincidence that Nélaton's probe was invented to locate a bullet in the ankle of the great Garibaldi, while one of Dr. Girdner's first cases was to locate a bullet in the ankle of a colonel, received in the battle of Chancellorsville. Dr. Girdner has given me leave to quote some of his cases, which I shall append in his own words, as published in the *N. Y. Med. Journal*, of September 17th: