VI.

Letter from a Correspondent, on the Exhibition of the Invisible Girl.

To Mr. Nicholson.

Sir,

Bristol, Jan. 9, 1807.

THE account of your correspondent X. of the manner in which the Invisible Girl amused the lounging public, exactly agrees with one which I sent to Mr. Walker, of Conduit Street, about two years ago, except that X. seems to have failed, as I did, in discovering the mode by which she saw the company; for one cannot be satisfied with being told, that "a small hole closed with glass is left through "the tunnel and side-wall of the room;" having carefully examined the room of that exhibited at Bristol, and ascertained that there could be no such aperture. Besides, we know that to see through any hole of a very small size the division must be nearly as thin as a sheet of paper, and a hole through a tunnel and side-wall must have been very long, indeed much too long to see people through. As my friend never answered that letter, I concluded that he either doubted of my account being the true one, or that he could not explain satisfactorily how the view of the company was acquired at Charles's exhibition; although he would not have been long at a loss to invent some expedient, had it been worth his while.

Confirmation of the former explanation of the Invisible Girl.

Question, How did she see the company?

In fact, thinking it might hurt the harmless exhibitors, or lessen the amusement of the public, I desired that account might not be published, unless necessary to prevent superstitious uses being made of the trick; and, after all, we lose by all these discoveries when made public, much innocent pleasure, as I well remember was the case when Mr. Thickness unveiled some such exhibitions. That which I saw at Bristol and Bath had a loose rail with eight legs; seven of which the operator always removed from their places to blunt suspicion, but the eighth I always found immovably fixed, and that was ever the leg toward the closet where the lady sat who directed us.

Account of an exhibition at Bristol.

His

His rail also was covered opposite the mouths of his trumpets with stained paper; but you could feel the vibration on the holes when any one answered, and peoples' hands had a little indented them by accidental pressure. As to a small camera, I do not think it was ever used here, or at all necessary for the lady, as a yard of tube with a trumpet mouth would have answered all the purposes: as, however, you have been at the pains of satisfying the general curiosity in so handsome a manner, excuse me if I request your correspondent to complete the instrument by disclosing what he actually knows of the mode of complete vision by direct or indirect reflection; being always,

Sir,

Your's,

G. C.

P.S. You have omitted *three letters* in the diagram of the perspective lines.

VII.

Description of a new permanent Compensation-Balance for a Time-keeper. By Mr. Wm. Hardy*.

Description of two compensation balances at present in use.

WE have at present two compensation-balances; one sort consists of several slips of brass and steel soldered, or fluxed together, and disposed in form of two S S's on the balance, but this is almost now out of use. The other is a steel balance, having a rim of brass fluxed upon its outside, and cut open in two or three places, with sliding weights on the rim, to increase or diminish the effect of the balance. The nature of the balance (the only one now in use) is well known, as well as its defects, which it is unnecessary for me to state at this time, as I shall have a better opportunity of pointing them out at large, should I be ordered to attend the Society.

Objections.

Instead of this uncertain way of constructing a balance, which never continues long in the same state, but requires

* Communicated to the Society of Arts, who voted a reward of thirty guineas.

to

Digitized by Google

A

JOURNAL

OF

NATURAL PHILOSOPHY, CHEMISTRY,

AND

THE ARTS.

FEBRUARY, 1807.

ARTICLE I.

Account of a Fact, not hitherto observed, that the Galvanic Power heats Water while decomposing it in Part. In a Letter from Mr. JOHN TATUM, Jun.

To Mr. NICHOLSON.

SIR,

IN the various galvanic communications which I have had the pleasure of consulting in your invaluable Journal, as well as in lectures and volumes on that interesting subject, to which I have attended, I do not recollect any mention being made on a circumstance attending the decomposition of water, which I observed about two months ago, in preparing for a public lecture I was about to deliver, which, if you think worthy a place in your Journal, is very much at your service.

Circumstance not hitherto noticed in the galvanic decomposition of water.

In the experiment alluded to I made use of four troughs of the following dimensions, viz. two of 26 plates, each plate 50 inches, and two troughs of 25 plates, each plate 36 inches,

Experiment. Water was decomposed by troughs of considerable surface.

Digitized by Google