to increase on the Daguerreotype plate the action of light? for it is not improbable that the affinity for mercury imparted to the plate is also due to some electrical influence of light. How could we explain otherwise that affinity for mercury given by some rays and withdrawn by some others, long before light has acted as a chemical agent?*

Photography is certainly one of the most important discoveries of our age. In relation to physics and chemistry it has already been the means of elucidating many points which had not been investigated, or which were imperfectly known before. We may certainly expect that its study will be considerably useful to the progress of these sciences. But it is in reference to optics that it opens a large field of research and discoveries. Had Newton been acquainted with the properties of which light is developed in the phenomena of photography, there is no doubt that he would have left a more complete theory of light, and of the various rays which compose it.

Since the discovery of photography, opticians have turned their attention to the construction of new combinations of lenses, in order to increase their illuminating power without augmenting their aberration of sphericity. It is right I should state here that the optician who first produced the best lenses for photography was M. Voightlander, of Vienna, and they still are the most perfect that a photographer can use, particularly for portraits. In this country, an optician of great merit has constructed lenses on similar principles, and at all events has succeeded to produce some which work as quickly, and give an image as perfect in every respect. This optician is Mr. A. Rosse, well known as a learned, clever and conscientious practitioner, and who seems, besides, well versed in the theory of his art.

* Electricity produces these results on metal plates, but the effect is due to the development of heat by the electric discharge. See Phil. Mag., vol. 23, p. 225.—R. H.

In Paris, M. Lerebour is renowned for l
es at longer focus, which are better adap
for taking views than any I have tried.

From the commencement of Photogra
it was well known that the rays operat
being the most refrangible, had a shorter
cus than those producing white light, and
this reason Daguerre himself recomme
ed the use of achromatic lenses, in wh
all the rays were supposed to coincide n
ly at the same focus; all the cameræ
scuræ were furnished with achromatic l
es, and constructed so that the plate co
be placed exactly at the same distance
the ground glass, upon which the im
had appeared the best defined. But w
these cameræ obscuræ it was very diffi
to obtain a photographic image so per
as that seen on the ground glass, and it
only now and then, and as if by accid
that good pictures could be produced.

I soon observed this anomaly, and i
gined that it was due to some errors in
respective position of the two frames,
holding the ground glass and the other
taining the plate, which, by warping o
some other causes, might have been shi
at different distances from the object gl
Not being able to assign another reason
the error, I constructed a cameræ obsc
in which the ground glass and the p
were exactly placed in the same frame.
doing so I was in hope to avoid the l
error or deviation; but to my surprise
more correct I was in my adjustment,
less I could obtain a well defined Dague
otype picture. This proved to me th
had to seek for another cause of the diffi
ty, and before going any further I deci
to try if the visual focus was, or not, r
ly coinciding with the photogenic focus
For the experiment, I placed at a dista
from the cameræ obscuræ several scr
on different plans. These screens being
vered with black lines I could see th
very distinctly on the ground glass. I t
the focus upon one of the screens. To
surprise and delight, I invariably found