

namely, “ that all matter is attracted in the
“ inverse ratio of the square of the distance ;
“ and this law seems to admit of no variation
“ in particular attractions but what arises from
“ the figure of the constituent particles of each
“ substance, because this figure enters as an
“ element or principle into the distance ;” and
having once discovered, by repeated experi-
ments, the law of attraction in any particular
substance, they may then, by the aid of calcu-
lation, be able to trace the figure of its consti-
tuent particles. To render this point more
clear, let us suppose, that by placing mercury
on a perfectly polished surface, repeated expe-
riments prove that this fluid metal is always
attracted in the inverse ratio of the cube of the
distance ; it will then become necessary to in-
vestigate what figure gives this expression ;
and this figure will be certainly that of the con-
stituent particles of mercury. If it should ap-
pear, by such experiments, that the attraction
of mercury was in the inverse ratio of the
square of the distance, it would be clearly de-
monstrated that its constituent particles were
spherical, because a sphere is the only figure
which observes this law, and at whatever dis-
tance globes are placed the law of their attrac-
tion is always the same.