An account of a small Discourse about Comets, Published in the High-Dutch at Neurenburge 1681. by a Lover of Astronomy.

It is a Dialogue betwixt a Naturalist, a Statesman or Politician, and a Minister of the Church, concerning the Nature and effects of Comets. Their first dispute arising about the Name; they all agree that a Comet signifieth as much as a hairy Star, or a body covered with Hair: Only the Minister endeavours to persuade them, of the Revelation of St. John, from Ch. 9, ver. 8. That the name of Comets might be of some use to terrify people from wearing any Perukes, being of opinion, that according to the Bible, all that wear such a Hairy composition on their Head, properly may be called Cometical Animals.

The Naturalist leaving this fancy to the Minister, explaineth further the Nature of Comets, reducing all the Opinions that are extant about the same to three several heads or Classes. In the first place he puts the four Elements, Fire, Water, Earth and Air. To the second he refers the Sun with all the Planets. And to the third the fixed Stars and their Vortices: and according to this division he sheweth how all the Opinions about the nature of Comets have been reduced to some of these three Principles; and beginning with Aristotle and his peripatetical reasons, he tells how the Peripatetics fancy the Comets to be composed of Vapours and fiery exhalations, which are kindled by the motion of the upper part of the Air, after the same rate as the French Jesuit P. Garnier pretendeth that Comets have their Original out of the fiery atoms or particles inclosed and dispersed through the whole Atmosphere, which particles afterwards collected in the form of a Globe or Ball, and illustrated by the Sun, do resemble and appear like a Comet. Of such a fiery stuff,
the French Mathematician Robbervale doth also compose the body of a Comet, supposing that the vapours in the air take fire like Gunpowder, and that the motion of a Comet is nothing else than a continual firing of these exhalations, which put together in a straight line, will make the Comet appear to move from one place to another, though it be only the dispersion of vapours successively put into a flame. After this the Naturalist propounds the opinion of Mr. Otto Gerike, who doth believe that a Comet is only a great piece of the Air, which by violence of Winds being broken off and transported like a cloud into the Æther, is illustrated by the Sun; so that according to this opinion, there cannot appear any Comet, if a terrible Wind or Storm hath not happened before, and caused such a divulsion. To all this the Minister joyneth his own phantasties, thinking that the Comets are moved by some Angels, which collecting a great quantity of terrestrial vapours, do carry them afterwards beyond the Moon, and put them up there like a Candle, to exhort the Inhabitants of the Earth to be good Christians; and if this opinion should not be accepted, there could be given another which hath been amongst the Romans and other superstitious Nations, As if the Souls of some great persons or Saints after death did transform themselves into Comets, which company of Souls or Saints tied together like Faggots do swarm and run all along the fixed stars to see the wonders of the World. But leaving this, the Naturalist goes further to the second class of opinions, and tells how by the Sun and other Planets a Comet may be produced, it being the opinion of Mr. Hevelius, that not only out of the Earth, but of the whole System of the World, such a sufficient quantity of exhalations may be collected as to form a Comet, which commonly doth happen after some great conjunction of the Planets, and any other disposition of the Coelestial bodies, as may be seen by the spots observed in the Sun: which opinion the Naturalist doth not like very well, because he doth not see how these exhalations can be joynd together, every Planet having his own Vortex, and that scarce any thing can transcend or slip out of the same. Likewise he thinks that the opinion of
the Jews hath but little foundation, when by their Hebrew
tongue they call Comets נינה, that is to say, Wind-bottles or
Bladders filled up with Water, which being put near the fire
make a great noise or wind coming out: for after the same
manner the heat of the Sun parboiling the body of the Comet,
according to their opinion, produceth a stream of Wind and
vapours, which by the beams of the Sun do appear like a
tail.

After this opinion he maketh mention of another Jesuit cal-
led P. Grandamius, who thinks that Comets are only densified and
rarified parts of the Heaven, and that the rarified part maketh
up the Tail, as the rest the body of the Comet. But because
he doth not tell by what reason or manner the Heaven is con-
densed or rarified, he leaveth him too, and commeth to the
third class of Opinions, which are related to the fixt Stars, and
uppermost part of the World: And first he proposeth the opin­
on of one P. Arrais, supposing that Comets are but a congrega-
tion or meeting of several little fixt Stars, which for a certain
time do joyn together, and afterwards leave one another, the
same Appearance being proved by good Telescopes. Next he
likes that of P. Petit, who is of opinion, That Comets are
some sort of Stars or Planets, which perpetually move, and
sometimes according to their nature come downwards, and
then ascend again: and that by this Hypothesis the Comet that
did appear 1618, might be the same with that of 1664. it being
evident by the History of Comets, that more than twenty of
them have appeared in a revolution of 46 years. But the Na­
turalist not agreeing with this Hypothesis, because he maketh
no distinction between new fixt Stars that appear, and Co­
ments, he tells us that it hath been the most antient opinion of
Pythagoras and the Chaldeans, revived by des Cartes, That the
fixt Stars are sometimes covered with spots and darkness, and
so being hindred in their natural course do run from one Vortex
to another, till they recover their liberty, and in the mean time
having lost their brightness do appear like Comets: but what
belongs to the tail of them, he thinks, that not only the re­
flexion of the Sun, but also the perspicuous subtilty of the Air,
and compression of the Atmosphere by cold weather, may produce such an appearance, because the Egyptians and other people to the South, according to Aristotle's relation, have observed both the sixt Stars and Planets, as Saturn, Jupiter and Venus, with variety of tails. For the rest what concerns the Astrological Predictions, he thinks it best to leave them to the Ministers of the Church, for that he himself doth not believe that any one ought to be frighted at the appearance of any such Natural body.

An account of another small Treatife written in High-Dutch, and Printed at Bazil, Anno 1681. Containing a new Theory about the Comets, invented by James Bernouilly, the Title whereof is thus expressed: A new Introduction, shewing how the motions of Comets may be reduced to some certain and Geometrical Rules, so that their appearance may be predicted.

Before he cometh to explain his Theory, he thinks it very convenient to say something of the Original cause of Comets, of their course and motion, of their place and tail.

1. What concerneth their principal or Original cause, he faith, That that old opinion which supposeth them to be a collection of vapours and exhalations put into a flame by the uppermost part of the Air, is scarce worth any consideration: for if the Comets by such an inflammation should have their light of themselves, there could be given no reason why the tail should always be seen in opposition to the Sun; and moreover if the whole Earth should be resolved into vapours, there would not be enough to form only the tail of such a Comet. Des-Cartes his Opinion he faith is strange enough: for that he thinks