

PERPETUUM MOBILE

CORNELIS DREBBEL WAS a famous inventor and scholar, but his colleagues treated him with reserve, reproaching him for lack of seriousness. It is a fact he was more inclined to spectacular demonstrations of his numerous abilities than to carry out systematic research. This is probably why no university ever offered him a chair. The royal courts, however, adored him.

In 1604 he appeared in England. Within a short time he won the sympathy of the higher spheres and the monarch himself; the material proof of this was an annual pension, paid from the royal purse, and an apartment in Eltham Palace. Drebbel then became what might be called a full-time manufacturer of unusual things and phenomena: a supplier of miracles, producer of bewilderment and vertigo.

According to contemporary accounts, two events in particular (among many) caused a real sensation and remained for a long time in human memory: a demonstration of the navigation of a submarine, constructed by the inventor, which traveled from Westminster to Greenwich without emerging from the waters of the Thames; and a great meteorological pageant in Westminster Hall in London before the king, court, and invited guests. At the pageant Drebbel's machine hurled out thunder and lightning; suddenly in the middle of summer it became so freezing that walls were covered with frost and those who were present shivered from cold; at the end a warm, heavy rain fell and everyone melted in delight. There was no end to the applause in honor of this man who, by the power of his genius, made nature's forces compliant to his will.

Drebbel's head was full of ideas both big and small, serious and ridiculous, intelligent and completely insane. He constructed a special ladder to help obese people mount a horse, he worked out a new system to drain marshy terrain, he built flying machines (malicious people called them fall-

ing machines), he made a small hammer to hit parasites on the head that was connected to tweezers which pulled the victim from the hair, he invented a sensational technological process for dyeing fabrics, also an effigy that could be set in the wind and emit frightening cries and moans. This is just a small number of the inventions of this man of unusual resourcefulness.

Who was he in fact, a charlatan or scholar? Because we cannot look inside his soul, which has resided for a long time in the other world, we must concentrate our attention on what he left on earth. Drebbel's library in particular, a true curiosity, provides valuable indications for those who want to study the nature of his intellect, fertile, with strokes of genius and undisciplined at the same time.

The very arrangement of the books makes one think that Drebbel read scholarly works together with treatises by alchemists. The writings of Bacon, Leonardo da Vinci, and Giordano Bruno stood side by side with Paracelsus, *The Seventh Veil of Isis*, *The Temple of Hiram*, and *The Amphitheater of Eternal Wisdom*. The weed of gnosis was rampant in the garden of the natural sciences. On the margins of dissertations in the field of mechanics, chemistry, and ballistic science Drebbel drew esoteric diagrams and wrote the sonorous names of the cabala: Binah, Geburah, and Kether, which mean Intelligence, Force, and the Crown of Knowledge.

Drebbel thought the world could not be explained in purely scientific categories, that sometimes the immutable laws of nature are not obligatory, making room for miracles and dazzling wonder. Probably this is why he built a perpetual-motion machine, improving it throughout his life (he realized his enterprise was hopeless from the physicist's point of view). One has to admit that on this path of madness he obtained certain results. His pendulums, windmills, spheres of light metal with weights hanging from them moved for a long time indeed, and when movement stopped the inventor pushed them with a finger, like a demiurge, awakening sleepy matter from a nap.

After centuries when my bones have crumbled—Drebbel thought—and even my name has dissolved in mist, someone will find my clock eternally striking. I don't count on human memory but on the memory of the universe. I want my existence to be proved like the existence of God, with an unmistakable and infallible proof: from movement, *ex motu*.