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"The place of Contemporary British Automata in Today's Craft Idiom."

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Introduction.

My first acquaintance with automata came in 1994 with an exhibition in the Crafts Council of Ireland called Automata, an exhibition of mechanical toys. The catalogue which accompanied the the exhibition gave the following description:

> *This exhibition of automata from eleven British and two Irish makers, is intended to make people leave with a light heart. "Automata" is a term applied to objects which invite the spectator to make them move, avoiding the usual touch-me-not of exhibitions. These are truly adult toys, but appealing to the senses of any age group. What unites this group of makers is the sense of fun, of liveliness, of irony,of parody, or curiosity...*[1]

I was fascinated by this type of art, which I had never seen before, and returned to view it on a number of occasions. I was intrigued by the mechanisms and wanted to figure out how these machines worked. When the exhibition ended I wanted to find out more about automata and began writing to some of the artists whose addresses were included in the catalogue. Many of these artists responded to my letters giving me a lot of information and I realised that there was much more to the subject than I had initially realised.

Through my correspondence with these artists,

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[1] Christine Ross, Automata, an exhibition of mechanical toys, 1994, p.1.

particularly Paul Spooner, I learned of a collection of contemporory automata in London called the 'Cabaret Mechanical Theatre'. In March of 1995 I went to visit this collection and received more information from the staff there. A few months later, while visiting a friend in Switzerland, she took me to the 'Musee CIMA' in St. Croix, where there is an exhibition of 18th and 19th century automata.

Having seen all of this incredible work, I decided that it would be an interesting subject for my impending thesis. I began collecting all available information on the subject of contemporary automata and also on the history of automata.

I thought it would be interesting to look at the mythology surrounding the automaton, so I have dedicated the first chapter to this subject. The second chapter looks briefly at the history of the automaton, paying particular attention to works from the 18th and 19th centuries. In Chapter three I have concentrated on the rise of automata in the twentieth century which began with the works of Alexander Calder and Jean Tinguely. Chapter four is dedicated to Sam Smith, who is generally

considered to be the father of contemporary automata. Chapter five looks at the centre of contemporary British automata, the 'Cabaret Mechanical Theatre'. Chapter six looks at the work of Paul Spooner who is the main exhibitor in the 'Cabaret Mechanical Theatre'. The final chapter looks at the types of materials and mechanisms which have been used in automata throughout history and in modern automata. I have concluded by looking at the significance and validity of automata in today' s craft idiom as compared with the place of automata in the past.

Fig.1.1.

Chapter 1.

Myths, Legends and Literature Relating to the Automaton.

Since time began man has been fascinated by the idea of imitating life in dead matter. There is little substantial information about the developments of the automaton prior to the sixteenth century since very little material evidence has survived to the present day. We know of their existence in ancient and medieval times however, through various myths, legends and fragments of automata. Descriptions and drawings have also survived in various manuscripts. Whether real or imaginary these stories demonstrate man's fascination with the idea of the automaton, his desire for perfection and also his innately destructive nature.

Automata have frequently had religious associations.[1] One of the earliest references to automata goes back to the ancient Egyptians, where priests used statues of the gods to enhance their religious ceremonies. The automaton, which was secretly manipulated by the

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[1] Christian Bailly, The Golden Age of Automata, 1987, p13.

priest, would have appeared to move or speak of its own accord. Naturally this would have overwhelmed the unsuspecting congragation who would have assumed that it was the gods themselves that were bringing the statues to life. The Greeks were also thought to have made similar statues of their gods. The Greek philosopher, Plato, described statues of the gods, made by the inventor, Daedalus,[2] which were so lifelike that if they were not securely tied down they might get up and run away by themselves.

The Greek gods themselves were also said to have made automata.[3] Haephestos, the blacksmith god, is said to have made a pair of golden, automated maidservants. Haephestos was born with a strong body but his legs were weak and crippled. His mother, Hera, was so ashamed of him that she threw him out of Olympus. He became a skilled metalsmith and punished his mother by sending her a beautiful golden chair but, when Hera sat in the chair it's arms grabbed her and would not release her until Haephestos was promised

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[2] Constance Eileen King, Encyclopaedia of Toys, 1978, p.91.

[3] Robert Page, Encyclopaedia of things that never were, 1985, p.25.

Aphrodite for his wife. The marraige was not a success however, as Aphrodite left him for the beds of other gods and mortals. Haephaestos consoled himself by making a pair of golden servants of incredible beauty and intellegence to support his legs while he carried out his heavy metalwork. As a god Haephestos was capable of making objects which were corrupt but was also capable of making flawless objects which were wholly virtuous.

There are also a number of Jewish legends relating to the automaton. A Bible story from the Apocryphal New Testament tells of Jesus and the clay birds:

> [4] *" This little child Jesus when he was five years old was playing at the ford of a brook: and he gathered the waters that flowed there in the pools and made them straightaway clean and commanded them by his words alone. And having made soft clay, he fashioned there twelve sparrows. And it was the Sabbath when he did these things or made them. And there were also other little children playing there with him. And a certain Jew saw what Jesus did, playing on the Sabbath day, departed straightaway and told his father, Joseph, ' Lo, thy child is at the brook and hath taken clay and fashioned twelve little birds and hath polluted the Sabbath day', And Joseph came to the place and saw, and cried out to him ' Wherefore doest thou these things on the Sabbath which it is unlawful to do? ' But Jesus clapped his hands and cried out to the sparrows 'Go', and the sparrows took their flight and went away chirping".*
> *- As told by Thomas.*

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[4] Iona and Robert Opie and Robert Alderson, The treasures of childhood, 1989, p.142.

Another Jewish legend is also about a figure made of clay. This is the legend of the Golem. According to legend, any man who lives a good and virtuous life can create the world by saying the secret name of God as written in a cryptic form in the Cabala. The word 'Golem' comes from the Hebrew word meaning *unformed* or *uncreated.* Golems are made from the pure clay of the earth which is then shrunk into shape of a man and life is breathed into him. In a sense, Adam was the first Golem as he was made of the pure dust of the earth and then Jehovah breathed life into him. According to the Jewish Book of Creation Golems are made by mixing fresh mountain soil with clear spring water to form a clay which is then moulded into the shape of a man. The maker of the Golem then had to say the magic word over each of the creatures limbs while walking around it in a clockwise direction. To reverse the spell the maker had to repeat the process, but this time walk around the Golem in an anticlockwise direction. Once completed the Golem could be ordered to carry out a number of menial tasks which it would perform obediently.[5]

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[5] Bruce Chatwin, Utz, 1989, p.40-46.

Some forms of the legend claim that the Golem wore a type of battery called a *shem*, which was put on the automatons forehead or under its tongue. On this shem was written the word *Emeth*, the Hebrew word for *truth*. If the maker wished to destroy the Golem, he only needed to remove the *E* from *Emeth*, leaving the word *Meth*, which is Hebrew for *death*. The *Shem* was meant to be removed each Sabbath day since all men are entitled to one day of rest.

Around the year 1590, the Rabbi Loew Ben Bezedal is said to have made a Golem called Yossel, to protect the Jews of Prague against an attack by the Christians. The Golem was a good protector and servant until one Sabbath when the Rabbi forgot to remove the shem from beneath the Golem's clay tongue. The Golem went berserk and ran through the town, destroying everything in it' s path. Yossel only came to a stop when the Rabbi finally caught up with him and removed the shem.[6]

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6 Robert Page, Op.cit. p.224.

This story in particular demonstrates the disastrous consequences that can occur when man attempts to play God by creating life unnaturally. Such activities are certainly blasphemous and although man is striving for perfection, attempting to imitate the powers of a higher being, he is also destructive in nature which is apparent in his attempts at the creation of life in the Golem.

A more recent story which is similar to that of the Golem is the story of Frankenstein. Mary Shelley wrote her novel **Frankenstein** in 1818 when her husband suggested that she write a horror story. At the time when she was writing this, scientists and naturalists were beginning to question the creation of life. The concept of evolution was first introduced at this time and Lamarck and later Darwin were beggining to question the origins of life. It was such speculation and the public debate over the morality of the suggestion of evolution that drove Mary Shelley to complete her novel.

Frankenstein tells the story of a young man who goes to College after the death of his beloved mother. He is faced with a number of opinions on the origins and creation of life. Frankenstein, unable to

come to terms with his mother's death, becomes obsessed with the idea of making a manmade man and bringing dead matter back to life. He sets about piecing together a man from dead body parts and makes what he considers a hideous monster. He is so appalled by what he has made that when he succeeds in bringing his creation to life he runs away in terror leaving the monster to fend for himself.

When the creature is set loose into society, it encounters humans who don' t know how to react, except with fear. Frankenstein' s creation reacts to this fear like an animal, by killing everyone who threatens him, as he too is afraid. He becomes the monster that he is first thought to be. The story of Frankenstein is not however, about the hideousness of the automaton, but rather about the cruelty and destructiveness of the society which drove Frankenstein' s creation to kill. The monster in this story is often portrayed in other stories and films as being called Frankenstein. Perhaps this is not such a misinterpretation as it is indeed Frankenstein, the man, who is the real monster. Although his

intentions are initially good, Frankensteins desire for perfection results in disaster.

Not all stories relating to the automaton give such a grim opinion of mankind. The Italian fairytale of Pinocchio tells the story of a lonely old man who wishes upon a star for a child to keep him company. He makes a string puppet called Pinocchio which a fairy brings tro life. Pinnochio is not however, a real boy and to become one he must prove himself worthy by being good and honest.

During medieval times the magician, Vergil made a mechanical fly which was used to keep the keep the Naepolitan meat market free from real flies. Vergil' s fly was good as was the puppet, Pinocchio, who turned into a real fly with the magic of a fairy. Magicians, fairies and supernatural beings like the god Haephestos and the child, Jesus were capable of making unnatural living things without disastrous consequences. Human beings, on the other hand, are incapable of anything so perfect. The Rabbi's Golem, Yossel, went berserk as did Frankenstein' s imitation of human life.

Chapter 2.

A Brief History of Automata.

The History of automata goes back a long way. Some of the earliest examples have been found in ancient Egyptians dating back to around 2000 B.C. During the Greco-Roman period skillful mechanisms based on the basic principles of physics, such as the movement of water and air were used in automata. In these early times it was considerered a science rather than a craft, as it is today.

During the first century A.D., Hero of Alexandria made many important advances in the making of automata. One example of his work is the 'Marvellous Altar', a pneumatic automaton. (*fig.2.1*) His contributions were an inspiration for later automatists when his manuscripts were found and translated in the 16th century. The translation of these manuscripts brought renewed interest in the manufafacture of these artforms at this time.

The Byzantines were known for their elaborate automata. During the early Byzantine era, a great clock was constructed in Syria which was adorned with a great figure of Hercules which beat out the hours

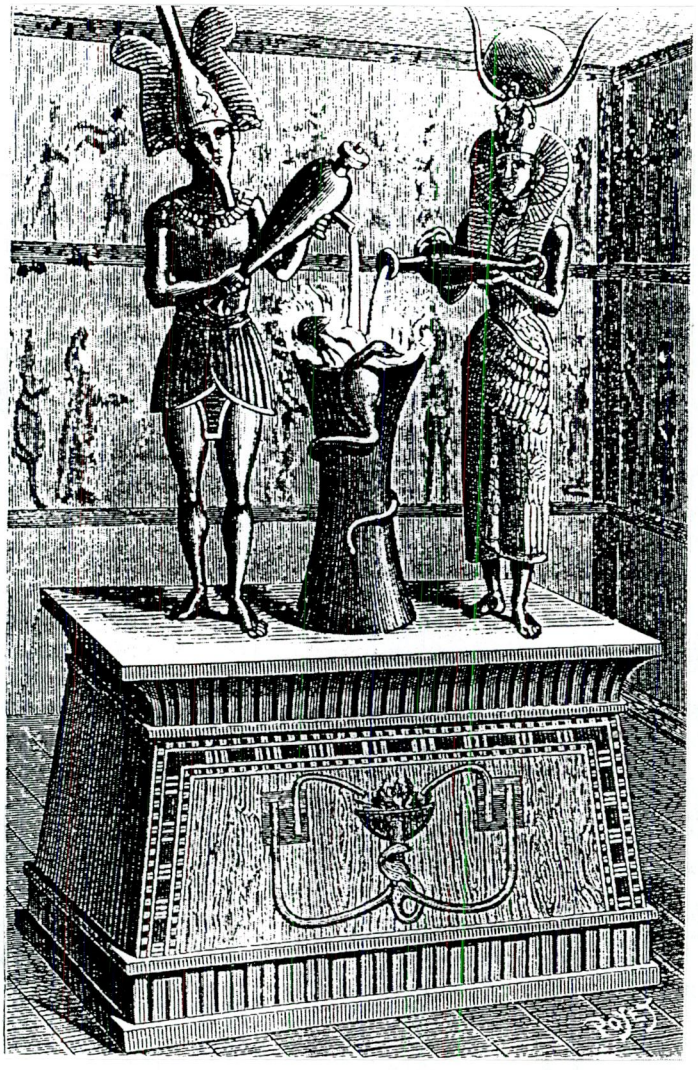

Fig. 2.1, The Marvellous Altar.

with it's club. Later in the Byzantine era the Emperor, Theophilus, commissioned a golden throne to impress visitors. The throne was mounted on two roaring lions and surrounded by imitation trees with singing, mechanical birds.

Throughout time, automata have been made for the rich and for royalty. In the middle ages the Mesapotamian inventor, Al Jazari, was known for his construction of water-operated peacocks for the princes of his country. Also in the 13th century, the Parisian goldsmith, Boucher, designed a 'Magic Fountain' for the Mongol Monge Khan. During the 16th century, intricate fountains were produced for wealthy Europeans in their elaborate pleasure gardens, for example, the Villa d'Este at Tivoli in Italy.[1]

Automata have had many uses in the past, including ecclesiastical purposes. The Gothic architect, Villard de Honnecourt, drew many examples of this type of work in his sketchbooks, for example, an eagle which could be activated while scriptures were being read. Automata have also frequently been used to adorn clock towers, particularly in the 14th century when figures called

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[1] G.Wi.,Encyclopaedia Britannica, Automata, p. 494-496.

Jacquemarts were invented to mark out the hours with there bells and movements. Probably the most famous of these Cathedral clocks is that of the astronomical clock of Strasbourg. Clocks themselves have also been popular objects for the incorporation of automata. The Swiss village of St. Croix is particularly renowned for it's makers of automated clocks.

The development of music boxes is very closely related to the development of the automaton. There is a museum today in St. Croix in Switzerland which traces these developments. The whole history of sound can be traced here, including a variety of realistic, singing birds in cages. There are also music boxes with dancing mechanical figures and large and tiny clocks and watches adorned with music and mechanical figures of men and animals. These types of automata, which began to develop in the 14th century, reached their zenith in the second half of the 18th century and the first half of the 20th century. This period was known as the *Golden Age of Automata.*

In the 18th century mechanical figures called androids were very popular in Europe. These figures of people were often accompanied by music and , although they were miniature, they aimed to look as

human as possible. Throughout their development they became more and more realistic and were able to perform a variety of human activities like writing, dancing and even acrobatics. The most renowned 18th century automatist was probably Vaucanson. As in the early legends of the Golem, Vaucanson appeared to be attempting to recreate life. He made figures such as a flute player, which as well as playing the flute also seemed to be breathing. He tried to imitate the internal function of animals also. He made a mechanical duck which could digest food and he is also said to have tried to create a figure which could circulate blood.

During the 19th century the production of the android flourished and became a thriving industry in European cities like Paris. Many great craftsmen spent months, even years on one piece. Some of the less complicated pieces were made for children of the wealthy, but these were not plathings and children were allowed to look, but not touch. In general these objects were bought for adults and, as in the past, could only be afforded by the very rich.

The subjects of 19th century automata varied. Singing, mechanical birds with elaborate plumage were popular, but androids

Fig. 2.2, Pierrot Writing.

in different guises were the main attraction. [2] Alexander Nicholas Theroude was one of the main automatists in Paris at this time, as was [3] Lucien Bontemps and [4] Henri Decamps among others. Theroude made many famous pieces, including a mechanical rabit and a chicken that laid sweet eggs, while his androids included a talking doll and a violin playing monkey. Vichy was famous for his writing Pierrot, c.1895 (*fig.2.2*), some of which smoked real pipes. He also made human figures which appeared to inhale and exhale smoke. Flower sellers and a mandolin player also feature among his work. Blaise Bontems made singing birds (*fig.2.3*) among other things, while Decamps made fur-covered animals including cats, dogs and foxes. Jacques made one of the most famous of all 19th century automata, his writing figure (1774), which was capable of writing about forty different words. (*fig.2.4*) One of his animals was an elephant which sucked up water and blew it out again.

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[2] Christian Bailly, The Golden age of automata, 1987, p.27.

[3] Christian Bailly, Op.cit., p.43.

[4] Constance Eileen King, Encyclopaedia of Toys, 1978, p.97.

Fig.2.3, Bird Cage.

Fig. 2.4, Writing Figure.

During the 18th and the first half of the 19th century, automata were kept alive by the wealthy patrons who paid vast amounts of money for them. During this period, while it was no longer considered a science, as it once was, neither was it considered toymaking as it often is today. Clockwork was still the most advanced technology known to man and the automists were highly respected artists. All this changed, however, towards the end of the 19th century in the wake of the industrial revolution.

Many advances were being made in technology all over the world, starting in Britain, and spreading throughout Europe by the mid 19th century. Clockwork was no longer the most sophisticated mechanism and there were now quicker and cheaper ways of producing automatic things. Wealthy people were no longer willing to spend a fortune on what were by now considered expensive toys. Many automatists tried to update their work by including the newly introduced electricity into their work. This increased their popularity only briefly until something new and more interesting was invented. Electric automata were used then as they often are today, to decorate the new 'Department Stores'. Most automatists went slowly out of business

Fig. 2.5, Turkish Smoker.

while others died, without family members to carry on the trade. The remaining automatists turned to toymaking or made end-of-pier amusements.

Automata have never again reached the same level of skilled craftsmanship and use of intricate mechanisms as they did during their 'Golden Age', but their still artists today in Switzerland, who study the mechanisms and the construction of pieces from this period. Many pieces have survived and can be seen in various museums around the world. Some pieces are found in fragments and are pieced together by experts and restored to their former glory.[3] One such piece was found in an old box some years ago in Philadelphia. There were broken porcelain body parts and hundreds of small cogs, cams and levers. Some experts from the Franklin Institute in Philadelphia recognised it as a 19th century writing automaton but not agree on who had made the piece. They reconstructed the android and put a pen in its hand. When the figure was set in motion, it wrote on the piece of paper put before it 'Maillardet made me'.(*fig.2.4*)

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[6] Rosemary Hill, Automath, Crafts, pg 46-49.

It has often been said that 18th and 19th century automatists were indeed trying to imitate life in their elaborate machines. I think that the discovery of Maillardet's writing figure shows that in some they succeeded in defying death. Vaucanson, who was one of the first android makers in 18th century France was once compared by Voltaire to Prometheus, the immortal, giant god from Greek mythology. According to myth, Prometheus and his brother Epimetheus were told by the gods to share out certain powers and gifts to the animals and people of the earth. Epimetheus performed his task diligently but, when it came to man's turn there were no gifts left and Prometheus felt sorry for man so he stole fire from the gods and gave it to man. The gods were very angry and they punished Prometheus by tying him to mount Caucasus where each day an eagle would come to tear out his liver and each day a new one would grow in its place. Eventually Hercules killed the eagle and Prometheus was set free. Voltaire said of Vaucanson: (*fig.2.5*)

> [7] *Le hardi Vaucanson, rival de Prometheus*
> *Semblait, de la nature imitant les ressorts,*
> *Prendre le feu des cieux pour animer les corps.*

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[7] Christian Bailly, Op.cit., p.14.

Translated to English this means:

> *The audacious Vaucanson, rival of Prometheus*
> *Imitating Nature's action, seemed to use*
> *Heavenly fire to kindle life in inanimate matter.*

It seems that in the 18th and 19th centuries the automatists were, like those in myths and legends, trying to imitate life in their clockwork machines. Their attempts, which were perhaps often unconcious, were very close in appearance to human life and, like Maillardet's writing figure, seemed possessed by human spirits.

Chapter 3.

Alexander Calder, Jean Tinguely and the Emergence of the New Automata.

During the early twentieth century, after the near extinction of automata due the effects of the Industrial Revolution, a new era in moving art began with the work of sculptors like Alexander Calder and Jean Tinguely. Although their works were not strictly 'Automata' in a traditional sense, they are often considered a starting point from which contemporary automata began.

Alexander Calder was born in Philadelphia in 1898. Coming from an artistic backgroung, Calder had always been creative and had an interest in art from a very early age. He used to make pieces of jewellery from bits of wire, which he would bend into shape, and bits of rubbish and found objects, which he would give to his sister or mother. After he had finished school he trained as an engineer and later, when he decided to become a painter, he joined the 'Art Student's League'. He furthered his artistic studies throughout the 1920's when he enrolled in the Acadamie de la Grande Chaumiere in Paris. It was there that he was first encouraged to make to make his silhouetted wire figures.(*fig.3.1*)

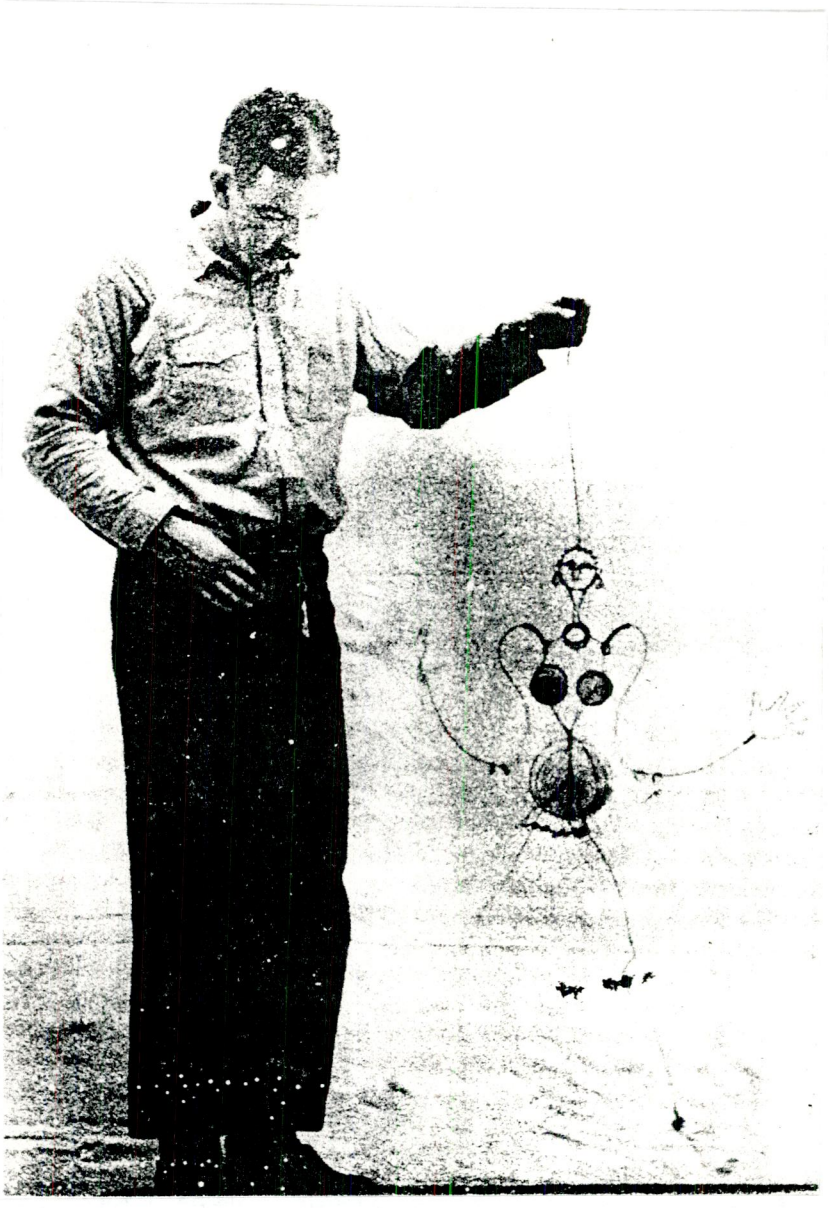

Fig.3.1, Josephine Baker.

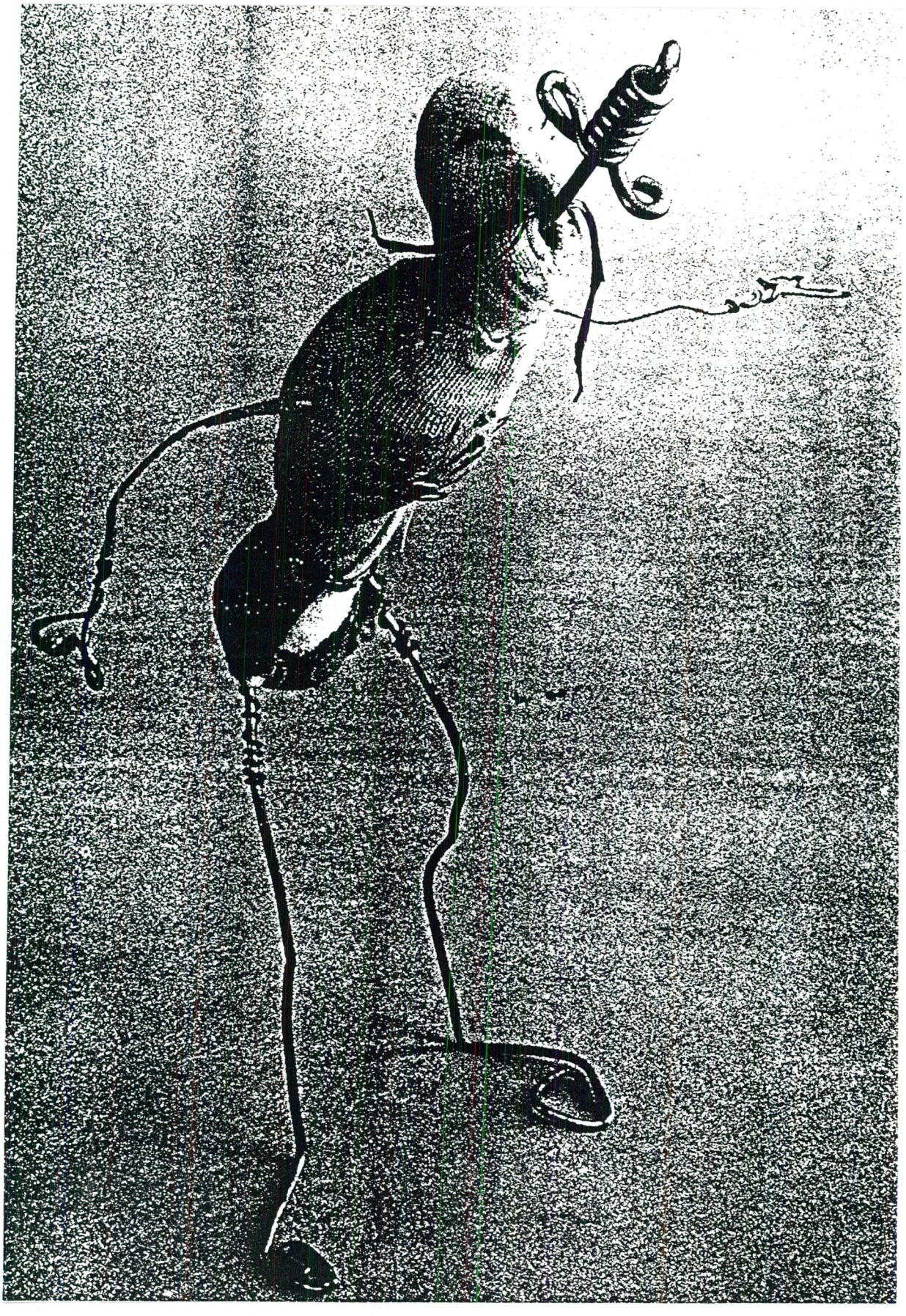

Fig. 3.2, Sword Swallower.

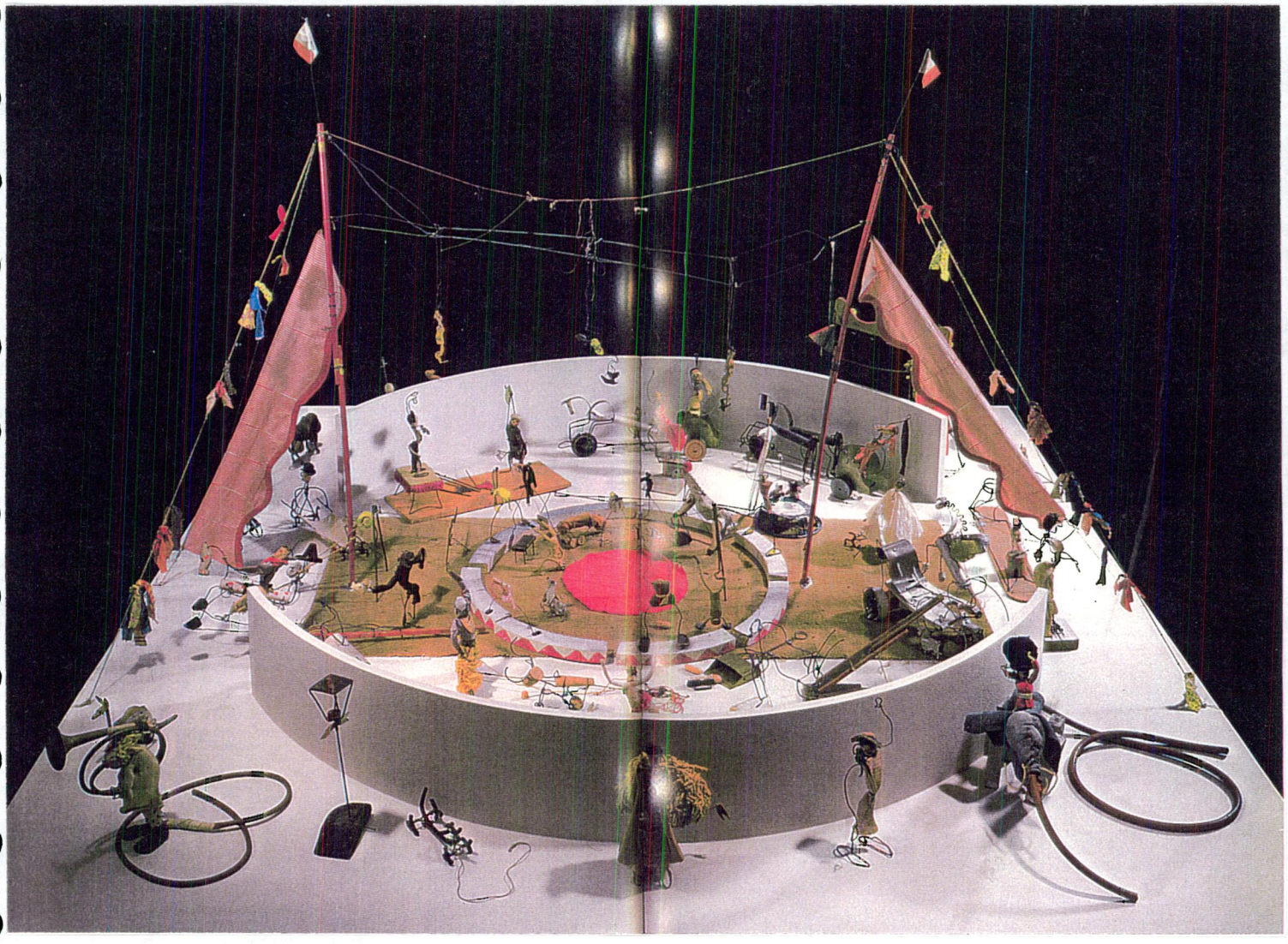

Fig. 3.3, The Circus.

He went on to carve wooden figures of people and animals under the supervision of Jose de Creeft during his final years of study in Paris. He also began making figures for his remarkable miniature circus during the mid 1920's.

His circus was made from pieces of bent wire, fabric, wood and a variety of found objects. The figures included (*fig.3.2*) The sword Swallower, The Flying Trapeze,The Ring Leader,(*fig.3.6*) clowns (*fig.3.4*) and a huge assortment of animals, including elephants, (*fig.3.5*) lions and horses. Calder used to carry the circus around in a suitcase but as the circus grew, he eventually needed five suitcases to carry all of the performers, the big-top and his various props.

Calder would perform his circus to friends and critics and would send (*fig.3.7*) invitations made from his personal lino cuts to invite these people. The whole presentation was choreographed by Calder and I think that it is the fact that nobody could automate the circus but the artist himself is what sets it apart from both traditional and contemporary automata. Automata are intended for the viewer's participation, and the viewer is a vital element in their design. This is not really the case in Calder's Circus because, although the circus

Fig. 3.4, Clown.

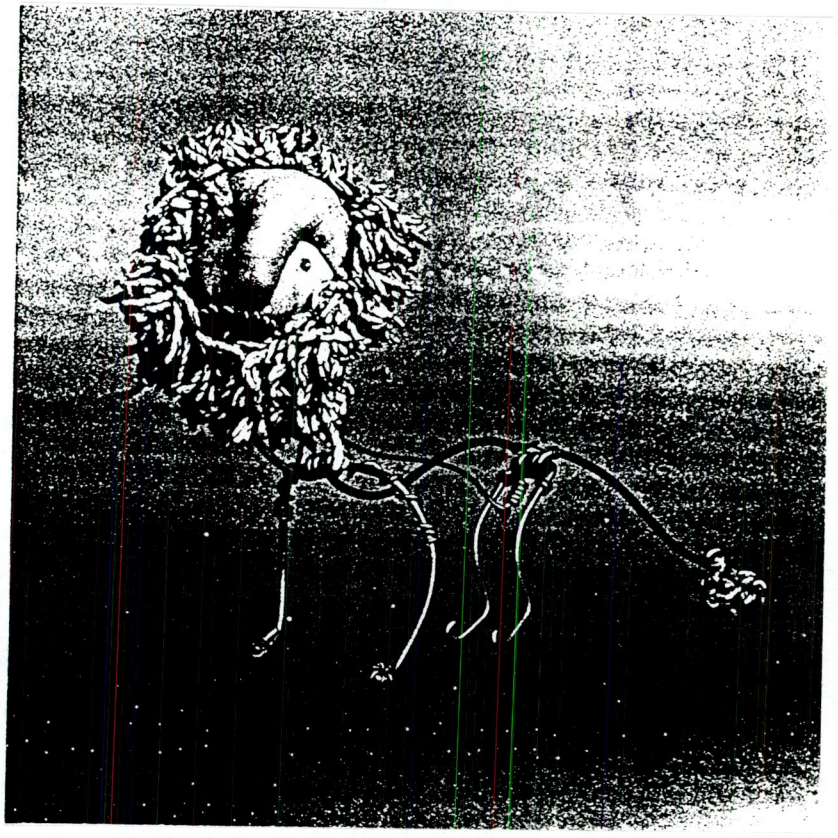

Fig. 3.5, Lion.

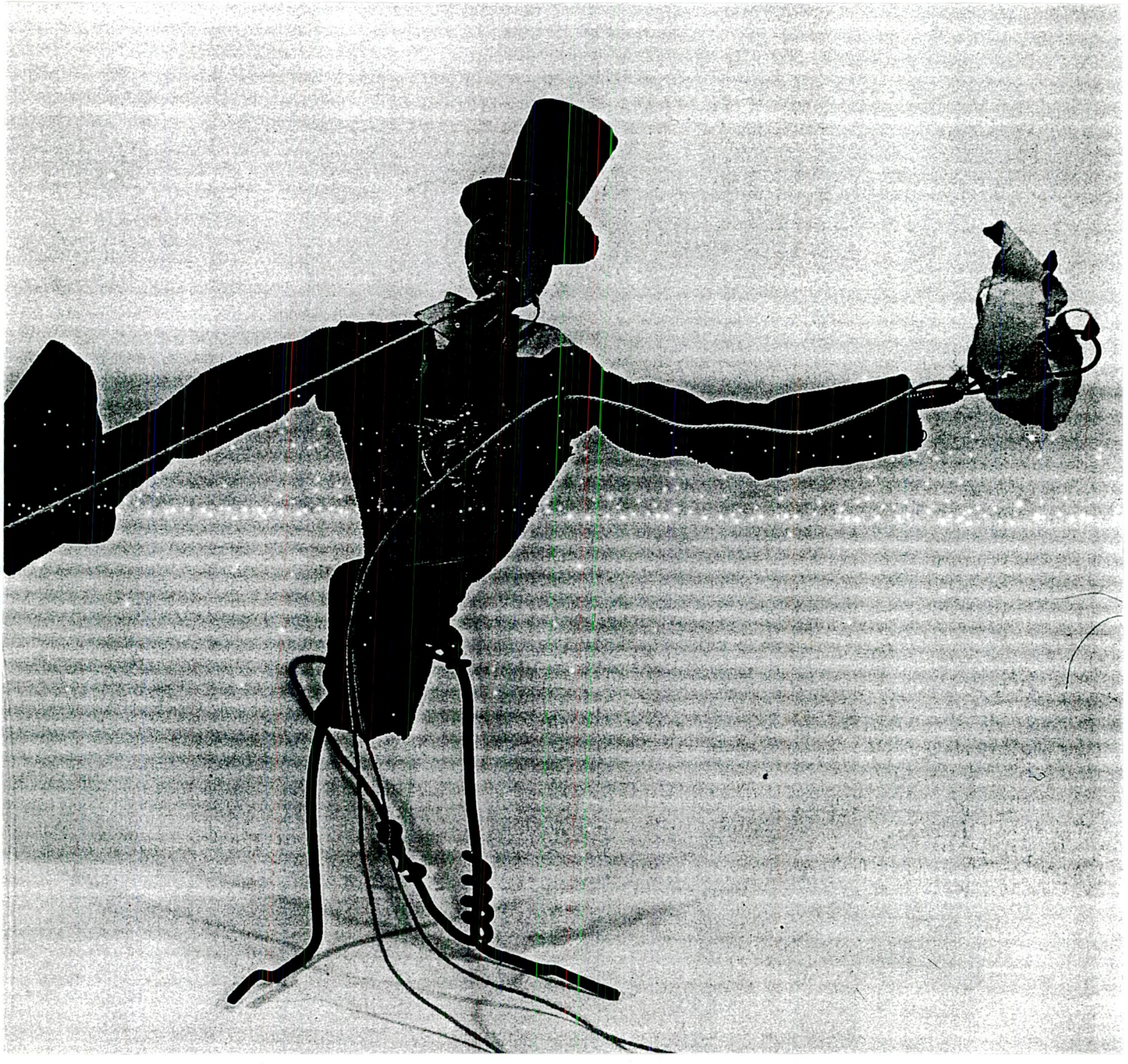

Fig. 3.6, The Ring Leader.

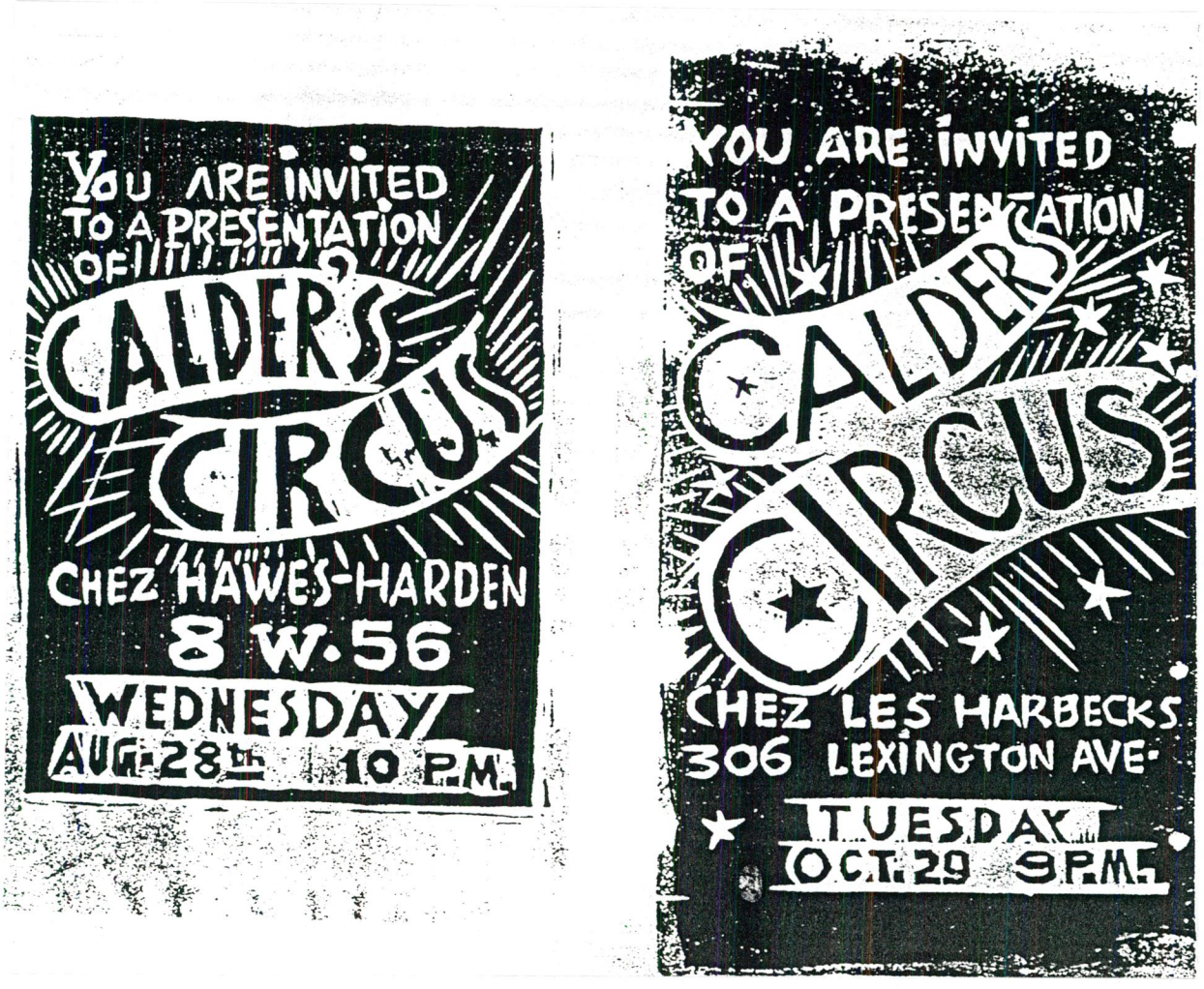

Fig. 3.7, Invitations to Calder's Circus.

needs an audience, like any piece of art, they do not participate in its activities. Calder's circus was never independent of the artist; they were merely tools for what could be considered a type of performance art.

Calder later abandoned the idea of controlled movement in art for a movement which was independent of both himself and his audience. He called these moving sculptures 'Mobiles'. (*fig.3.8*) He still used the similar themes of animals performed but worked on a much larger and more abstract scale.

Jean Tinguely was born in 1925 in Fribourg, Switzerland. Like Calder, he was creative from a young age, but did not come from an artistic family. He never realised that what he was doing was art. When he was about twelve he remembered making

> [1] *Something pretty original; I spent weekends...beside astream rigging lovely little wooden wheels...art never entered my head...I used a stream in a wood, but I must point out that it was a pine wood, a kind of Cathedral, and with Cathedral's acoustics...the sound was magnified fantastically. I built up a dozen of these little wheels. They all turned at different speeds, and the speed sometimes changed with the flow of water. Every wheel had one cog...this one made the wheel rotate irregularly-as follows; it turned, struck a small hammer, which in turn struck asmall tin cans of various kinds, some rusty, some not, and with different resonances. These sounds*

[1] Heidi E. Violand-Hobi, Jean Tinguely, life and work, 1995, p.10.

Standing mobile. Glass, metal. H. 20 in., ca. 1942
Provenance: Mr and Mrs Alfred H. Barr Jr, New York

Fig. 3.8, Standing Mobile.

with their different rhythms were placed at intervals of between five and six metres, and sometimes the sound of the concerts carried for a distance of a hundred metres through the woods. Sometimes the set up went on for weeks. Of course it was boud to fall apart in the end, but some of the wheels went on running for months.

Something of a child prodigy, Tinguely began an apprenticeship with a local decorator in 1941. However, he was rather undisciplined and his apprenticeship was terminated two years later. He went on to study with another decorator and artist, Joos Hutter, in his home town of Basel in Switzerland while also attending art classes at the Allegmaine Gerbes-chule. He started as a painter but found that he never knew when his paintings were finished and they [2] "just went on indefinitely". He solved this problem by infroducing movement to his work.

[3] *I was trying to get away from the imperative, the power of these artists, including Mondrian. I began to use movement simply to make a re-creation. It was a way of redoing a painting so that it became infinite - it would go on making compositions with the help of the physical and mechanical movements I gave it.*

While Tinguely was aware of the kinetic sculptors of the 1920's, his main influence was Alexander Calder.

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[2] Heidi E. Violand-Hobi, Op.cit. p.20.

[3] Heidi E. Violand-Hobi, Op.cit. p.20.

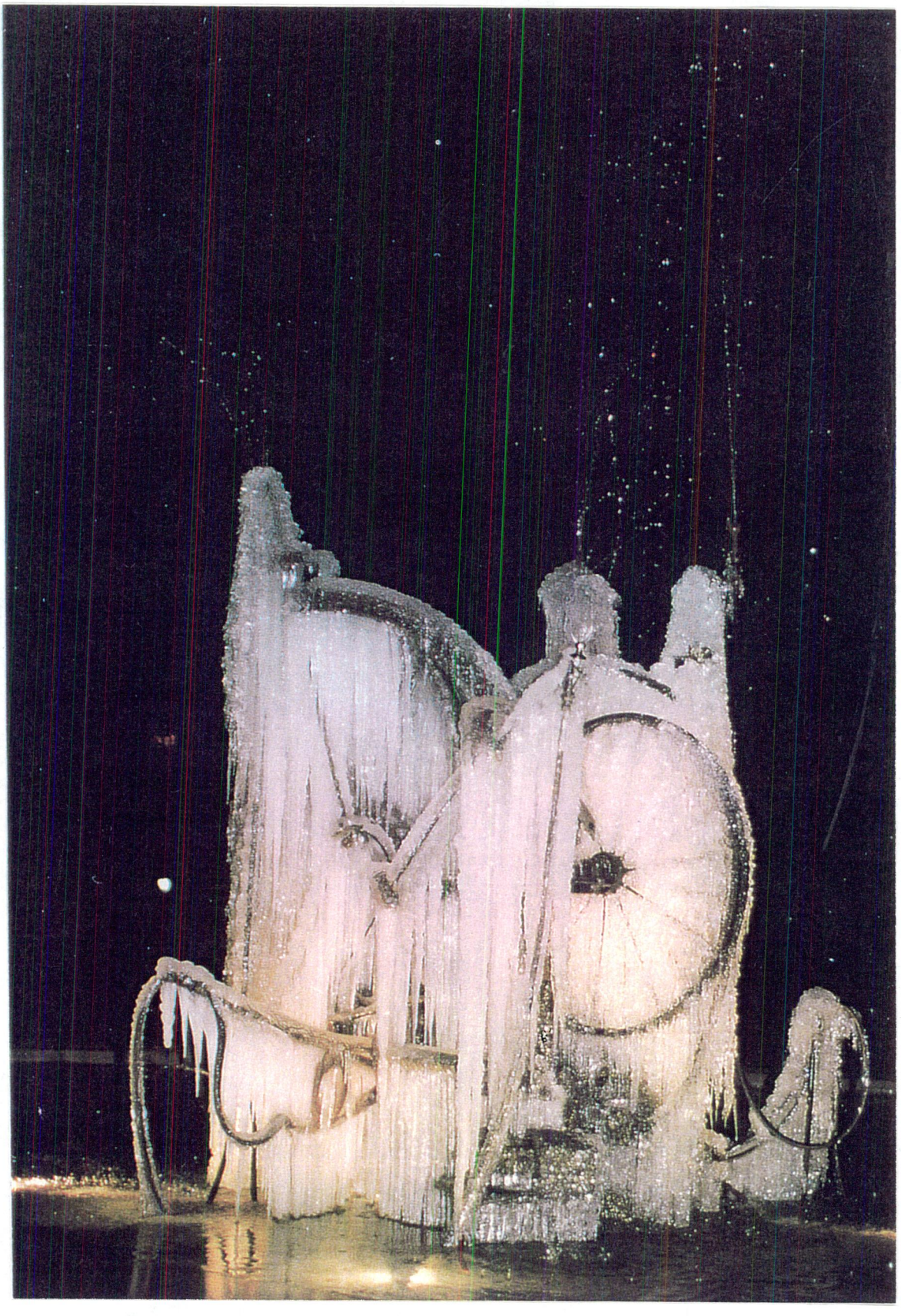

Fig. 3.9, Jo Siffert Fountain.

Fig. 3.10, Machine a Dessiner.

Like Calder, Tinguely needed movement to express his work,as both found that their ideas could not be expressed sufficiently without the element of animation. Tinguely's machines, while they were controlled to a certain extent with cogs and cams, were also controlled by the forces of nature and, like many automatists, he aspired to bring his work to life with its abstract and often undisciplined movements. Tinguely's work, while it was in direct contrast to the 18th and19th century automata because of its rough appearance and its boisterous movements, was similar in some ways. Tinguely's work was not particularly narrative and he made no attempt to imitate human life but he did imitate human actions. ain 1959 he made a drawing machine called (*fig.3.10*) Machine a dessiner. This machine drew crude scribbles. It was very different from the Maillardet drawing figure from the 19th century, which was smooth and controlled, but the basic principle of a machine which draws is the same.

Many people consider Alexander Calder and Jean Tinguely to be the first of the contemporary automatists. While their work is fundamentally sculptural, it does possess many similarities to the work of contemporary automatists. Even though their works are not strictly

automata, I do believe that their work, mixed with traditional automata, paved the way for a new era of automata.

Chapter 4.

Sam Smith; the Father of Contemporary Automata.

Sam Smith was born in 1908 in the English town of Southampton. His earliest recollections of an interest in art go back to the first World War when he was about eight. Army troops were assigned to stay in houses near his and would paint imitation lace curtains on the window panes. Smith became fascinated by this unusual form of art and spent many an hour going from window to window to study it. He later described himself as a "Connoisseur of painted lacework".[1]

As a child growing up near the thriving port of Southampton, he watched the many ships and ocean liners that would dock there. He dreamed of one day travelling first class on one of these ships and imagined seeing all of the rich and famous people that would be there. He thought that these people must be very speacial seemed they seemed to lead such interesting and luxurious lives. He got a terrible shock when he discovered that these speacial people were just as prone to ordinary

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[1] Sue Grayson, Sam Smith, Serpentine gallery catalogue, London, 1980, p.4.

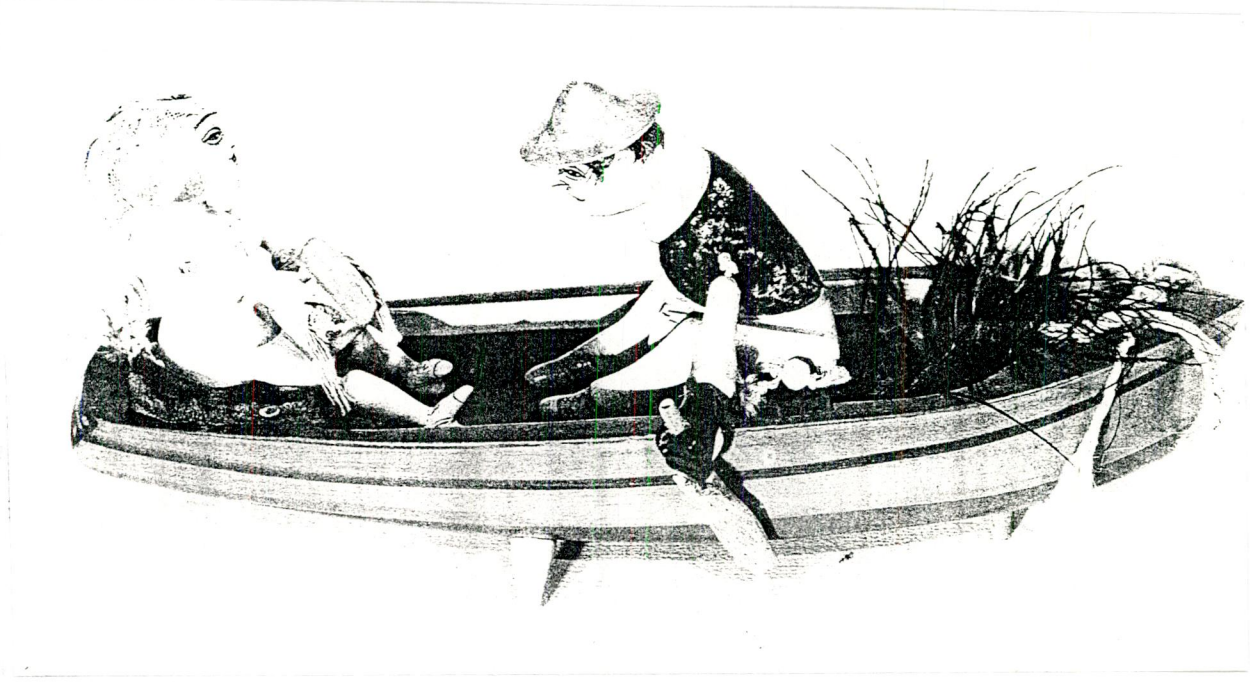

Fig.4.5, Joness of Pill Honeymoon Boat.

things, like seasickness, as everybody else. This made Smith realise that, in fact, all men are equal. Ships, ocean liners and speacial became one of the themes of his later work.(*Fig.4.5*)

Even as a child, Sam Smith had an interest in human nature. He had been a sickly child and as such, his mother had kept him out of school until he was eight years old. He remembered many school officials turning up at his house looking for an explanation for his absence. One such official stuck in his memory. He was a man in a long raincoat, a bowler hat and he had a long, droopy moustache. Smith saw this moustache as a mask to hide the true self from the world. He realised that people frequently wear protective dress to hide their true selves from the eyes of others.

When the war was over, he had his first glimpse into the world of the automaton. When the fair came to town twice yearly it brought with it great colour and excitement, and some large musical steam organs with mechanical figures, which danced and played instruments. This fascinated Smith more than anything else he had ever witnessed. He had

always known that he wanted to be an artist but now he knew that he wanted to make things "with colours and convulsions".[2]

When he finished school, Smith went to art college, where he was taught art history and how to draw, but he claims to have actually learned very little there. He later began to teach himself. His first job after college was to design a book cover for a book by Carl van Lechten called "Parties". It was in the middle of the Great Depression and for quite some time he did not get another design job. He began doing odd jobs until something more permanent came up. He was not discouraged about his career as an artist but he did feel lonely sometimes. He thought that nobody could feel as bad as he did until one day, while caught in a summer rainstorm, he saw that everybody was getting just as wet as he was in the rain. He realised that he was not alone in his suffering.[3]

Finally in the 1930's he was introduced to the proprietor of a Craft gallery in London, Muriel Rose. He was very impressed with 'The Little Gallery' and made some small wooden pieces to exhibit there. One

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[2] Sue Grayson, Op.cit. p.5.

[3] Sue Grayson, Op.cit. p.6.

Fig. 4.1, Nunc.

Christmas, the gallery exhibited some German folk toys which were a huge influence on Sam Smith's work. He dropped all of his pretensions about being an artist, and began making things about ordinary people who would get as wet in the rain as he would.

Through his automated sculptures, Smith tried to bring out a person's inner self that they might be trying to hide. He made a number of pieces about boats, but his favorite theme was harpies. Harpies are mythical creatures with the face of a woman and the claws and body of an eagle. They were used by the gods to torment and punish humans. Smith imagined that every man had a harpy which was always there to remind him of the inevitibiliy of death.

In 1979 he made a piece called **Nunc** (*Fig.4.1*)which he described as follows:

> *She used to call him uncle, sometimes Nunc. Now he's singing Nunc Dimittis. A man's harpy is with him for life. She's always there to remind of death, but during their long association, tolerance, respect and a certain measure of regard can develop between the parties. This harpy has been concerned because the old man has not been too well. She flies in from the garden, flutters around, lands on his game leg - always her favorite perch. Nunc, she says, very quiet like. She is shattered when he does not answer: it's the end for her too.*[4]

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[4] Sue Grayson, Op.cit. p.39.

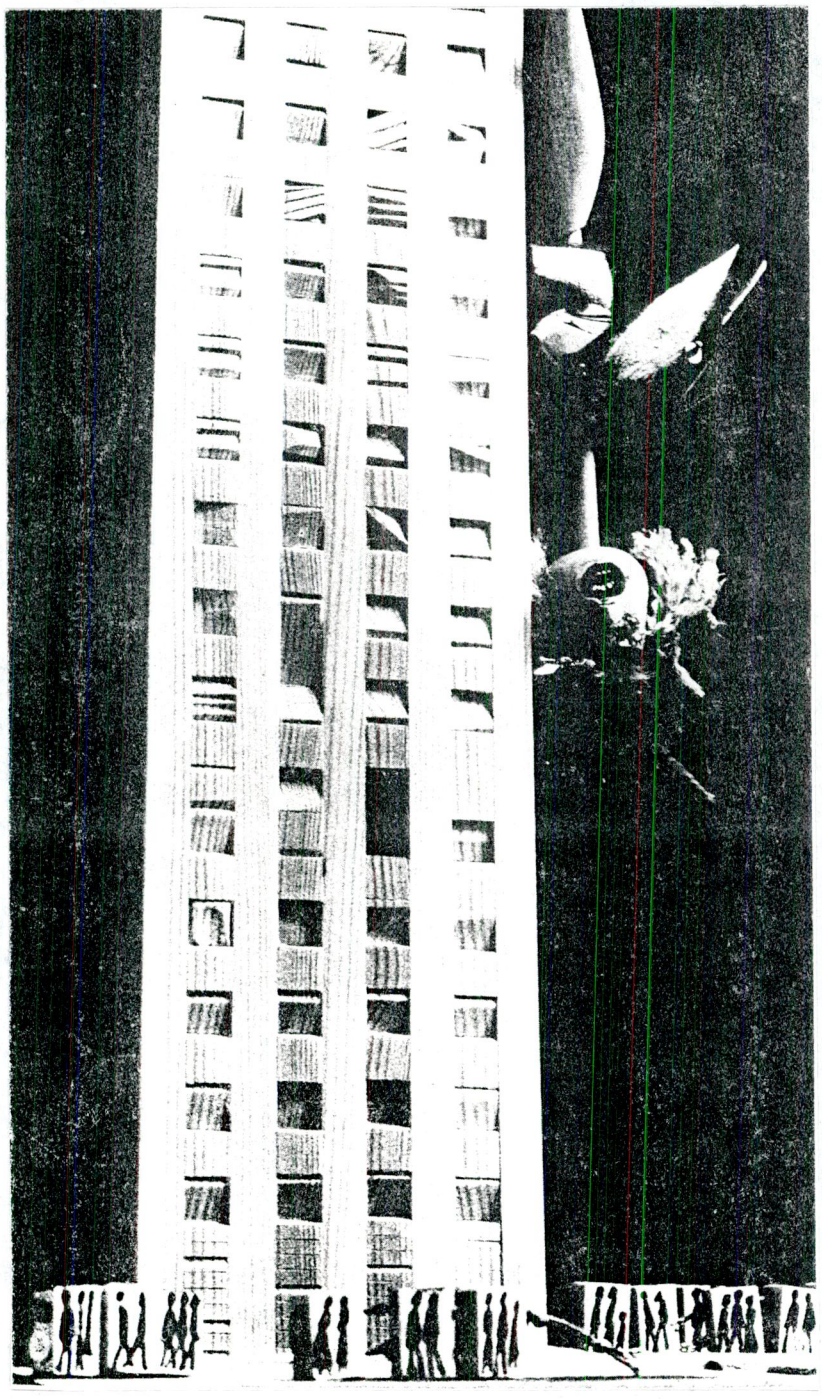

Fig. 4.2, Unaware, New York 18 May'22.

Another piece which includes the mythical harpy, **Unaware, New York 18 May '22,** is also from 1979. (*Fig.4.2)* This piece is of a skyscraper with numerous people walking along below it. The date in the title refers to the day when harpies apparently landed on a building in New York. The people in the street below don't know, or perhaps don't want to know, that there are harpies looming above them. They carry on with their business, ignoring their fate that the harpies represent; "They are living in a foolish Paradise", says Smith.[5]

Sam Smith's work deals with his own unique insight into human nature: in 1979 he also made an ink drawing entitled **Lieutenant governer in retirement.** (*fig.4.3*) The lieutenant, still in uniform, has gone into a retirement home along with his harpy which he calls 'Ma'am'. He is trying very hard to hold on to his image of a lieutenant but it is obvious that he is no longer employed in this fashion. Smith says:

> [6] *He's an old creep. People I make out of wood are all made in the outward form which they wish to be seen, but I try to catch them at a moment when something of their real character comes through; so they are what they are as well as what they want to be.*

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[5] Sue Grayson, Op.cit. p.41.

[6] Sue Grayson, Op.cit. p.10.

Fig. 4.3, Lieutenant Governer in Retirement.

Fig. 4.3, Lieutenant Governer in Retirement.

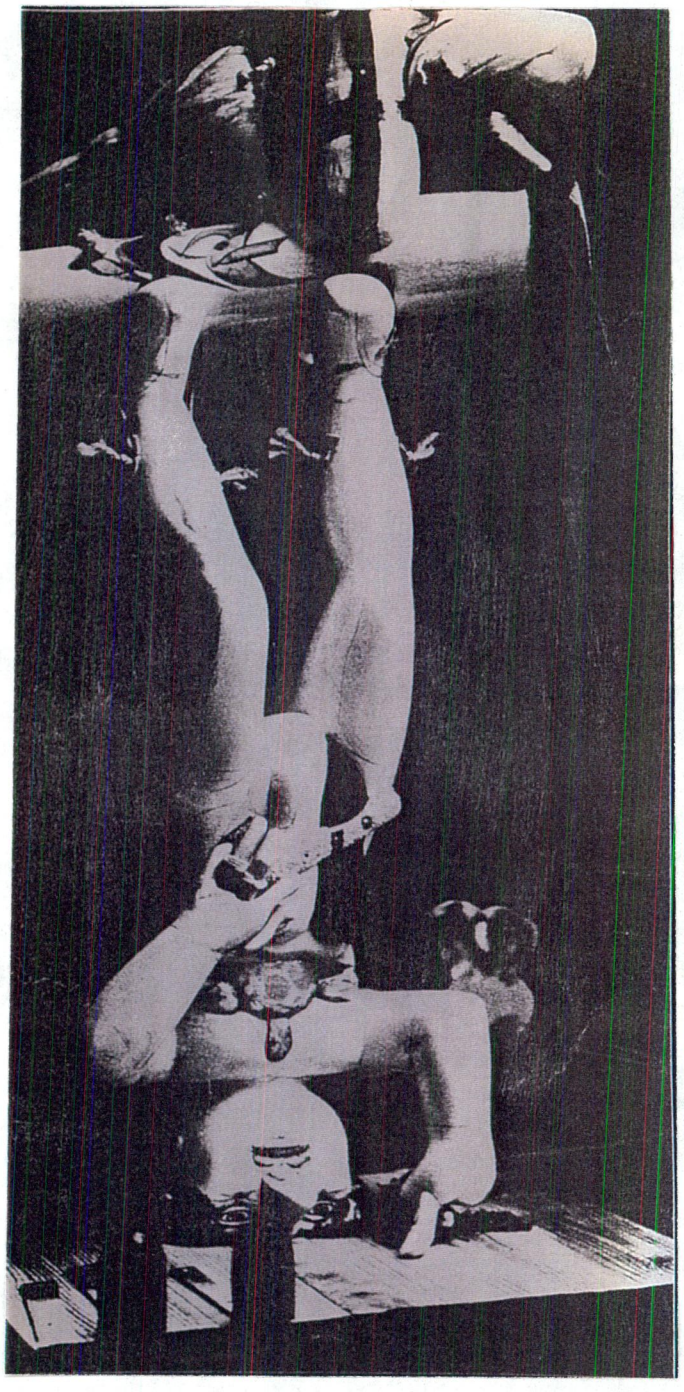


Fig. 4.4, After the Intermission.

Smith has also made numerous wooden figures of dancers and acrobats. **After the Intermission** (*fig.4.4*) is a wooden figure of a foot-juggler and how he is seen after the curtain goes down. During the performance the juggler was seen how he wanted to be seen, as a skilled performer. When the curtain goes goes down, however, we also see how he really is: stuck in a fix, on his headand unable to get down. He is still a skilled foot-juggler but, like everybody else, he is not perfect and when the curtain closes we can see that he is just as capable of getting into a fix as anybody else.

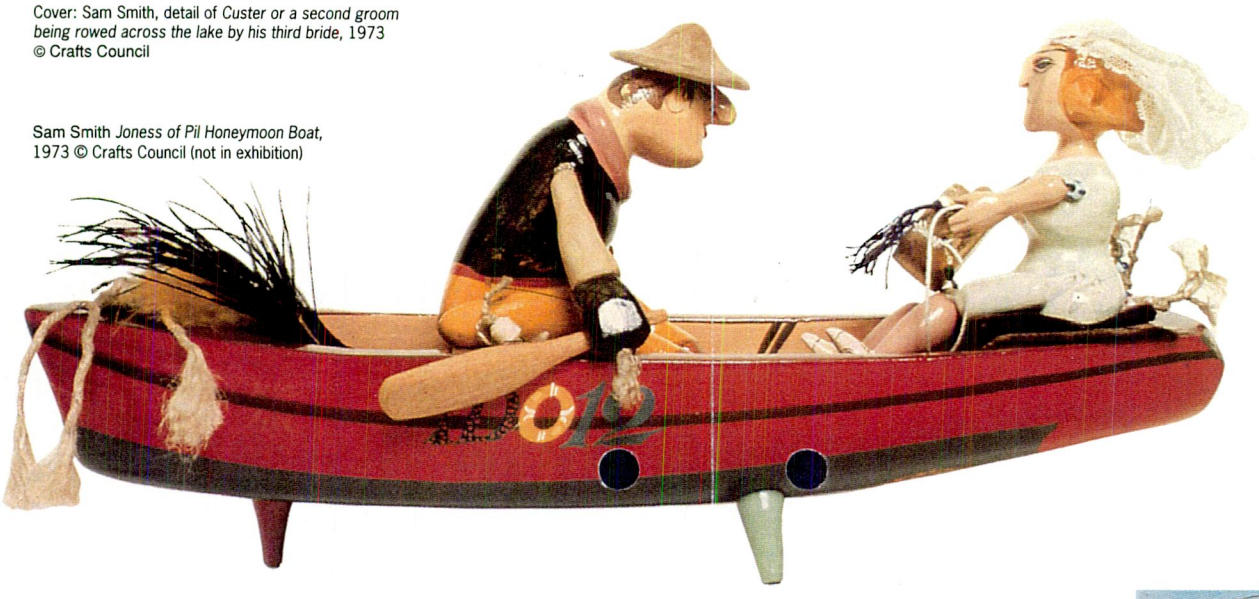
Unlike the legends discussed in chapter one, which show people who were directly trying to imitate human life and the intricate automata from the eighteenth and nineteenth centuries, which were imitations of human appearance and activities, Smith imitated life in another way. He looked more at human character than appearance. He made automata which demonstrate the way men think and the way in which men try to hide their true selves.

Sam Smith used humour to portray his ideas about human nature, and I think that this is his main link with the contemporary

automatists. He is often cited as one of their major influences and the fact that their work is also based mainly on human character, rather than human function, makes Sam Smith the father of contemporary automata. Smith continued to make figures about the human character and particularly using harpies to portray these ideas until his death in the 1980's.

Cover: Sam Smith, detail of *Custer or a second groom being rowed across the lake by his third bride*, 1973
© Crafts Council

Sam Smith *Joness of Pil Honeymoon Boat*, 1973 © Crafts Council (not in exhibition)

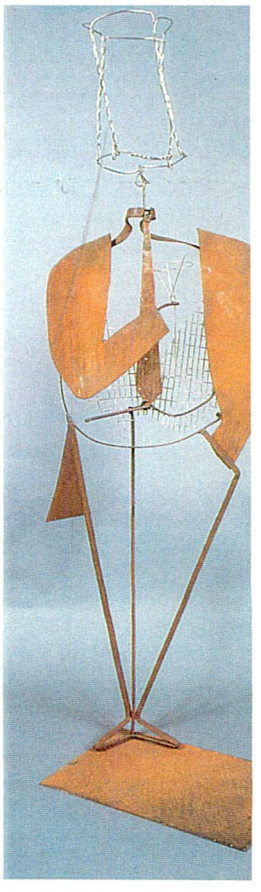


Powered by hundreds of cams, cogs, wires and wheels, over seventy wood and metal sculptures sway, twist, nod and undulate in extraordinary rhythms. This exhibition consists of entertaining and brilliantly inventive work by Britain's leading automatists. An automaton is anything that moves without being visibly pushed or pulled, derived from the Greek 'automatos' meaning self moving.

The possibility of making artificial beings has caught the imagination of most cultures; from Hero of Alexandria in the first century who used a rudimentary steam engine to cause dancing figures to revolve on a platform, through Albertus Magnus in the Middle Ages whose automaton was allegedly demolished by Thomas Aquinas as 'the work of the devil', to the ultimate man-made man Mary Shelley's Frankenstein. In fact every civilisation has some record of attempting it and until the internal combustion engine, clockwork was the most advanced technology known to man, the microchip of the day. Even Leonardo da Vinci made a mechanical lion to greet Louis XII when he arrived in Milan in 1500. The lion walked on its own and tore open its breast, revealing a fleur de lis emblazoned on its heart. By the 18th century automata building had reached extraordinarily proficient heights, with French craftsmen leading the field in exact replications of life. But the Industrial Revolution put an end to the ascendancy of the Automatists and their clockwork mechanisms were soon relegated to children's toys and end-of-pier amusements.

Frank Egerton *Punch and Judy Box* 1982

The current generation of automatists grew in the 1970's and 1980's, perhaps encouraged by the work of Sam Smith who is seen as the father figure of contemporary automata. He once said "I stopped having pretensions about being an artist, gave up all my fine art fantasies, and became an ordinary person, making things about ordinary people who would get as wet as I would in the rain." Sam Smith's painted wooden sculptures depict his observations of the [illegible]rd and ironic in everyday life. In 1980 he had an exhibition at the Serpentine Gallery, an indication of his success in both fine art and crafts circles. This exhibition brings together more than twenty automatists whose work displays an unusual combination of talent. They share an innate curiosity about the way things work and combine the skills of sculptor, artist and inventor. These works will intrigue and entertain, offering witty and unexpected views of the contemporary world.



Benedict Whybrow *Guests Man* 19[illegible]
(not in exhibition)

Chapter 5.

'The Cabaret Mechanical Theatre' and the beginnings of Contemporary Automata.

In Falmouth, Cornwall during the late 1970's a woman named Susan Jackson was running a small gift shop in which she sold items like hand knitted jumpers and carved wooden toys made mostly by local craftspeople. She called this shop 'Cabaret'. A friend who taught at the local art school, called Peter Markey, had started making automata when it was suggested that a small wooden sculpture he had made, called **The Runners**,(*fig.5.1*) could be made to move. He later began to sell some of these small automated sculptures in Jackson's shop. She was very impressed by his work and it immediately became the central focus of the shop.

Peter Markey continued to experiment with automata and made a series of brightly painted 'Wooden Jungles'.(*fig.5.2*). Like Sam Smith, Markey had grown up near a port and was fascinated by boats and trawlers. He was most interested, however, in the movement of the boats over the water and the

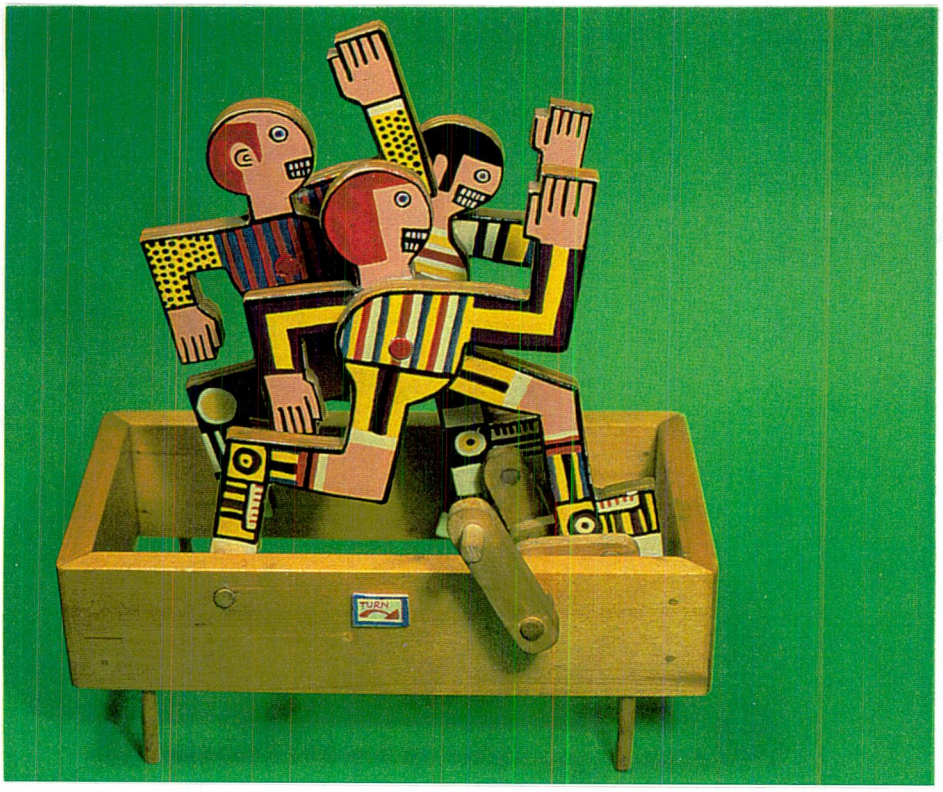


Fig. 5.1, Runners.

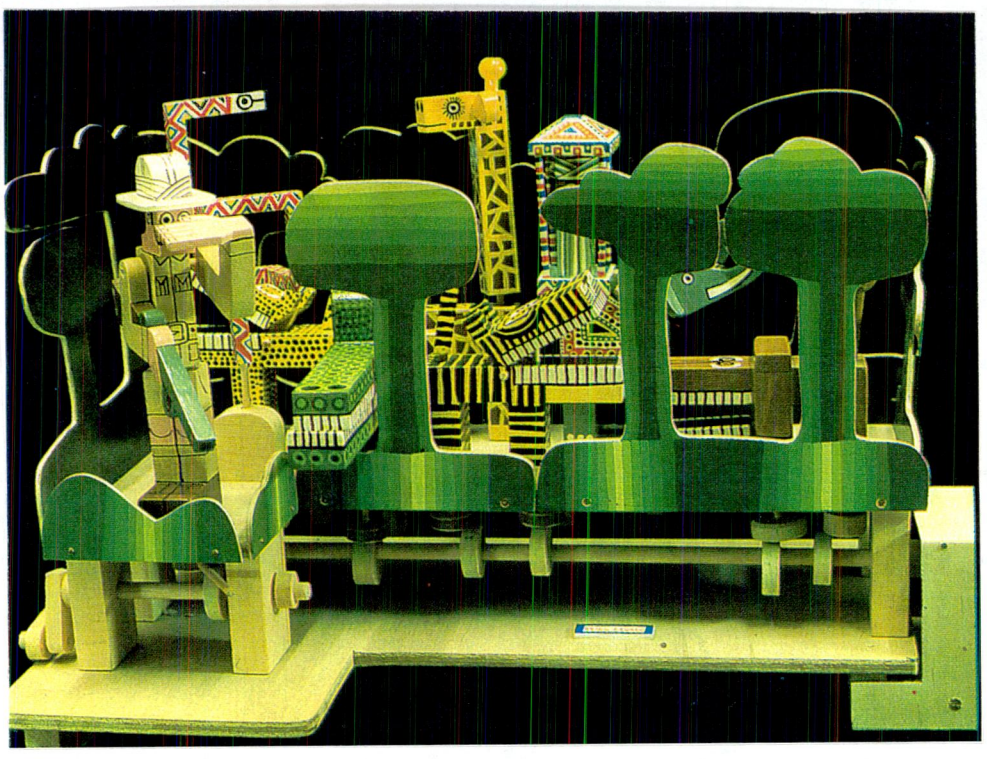


Fig. 5.2. Wooden Jungle.

movement of the water itself. He began to investigate this movement by making small moving sculptures of waves. He was fascinated by the idea of using a hard rigid substance lke wood and articulating it in such a way that it looks fluid like water. He made a series of 'Wave Machines' (*fig.5.3*) for the 'Cabaret' gift shop, some of which had little boats bobbing up and down, others simply waves by themselves.

Paul Spooner, who was working at the time as a lorry driver, but had studied as a mechanical sculptor in Cardiff Art College, saw Markey's work and decided to try his hand at making some automata. His first piece, which was exhibited in 'Cabaret' was a 45 inch high skeleton called **The Last Judgement**.(*fig.5.4*) Inside the skeleton were a multitude of hanging figures and a box which opened to reveal even more figures of tortured souls, which bore the faces of Spooner's local friends and enemies., in what appears to be the scene of a local pub. Some of the figures are playing pool while others sit around having a drink and a chat. There is even a barman

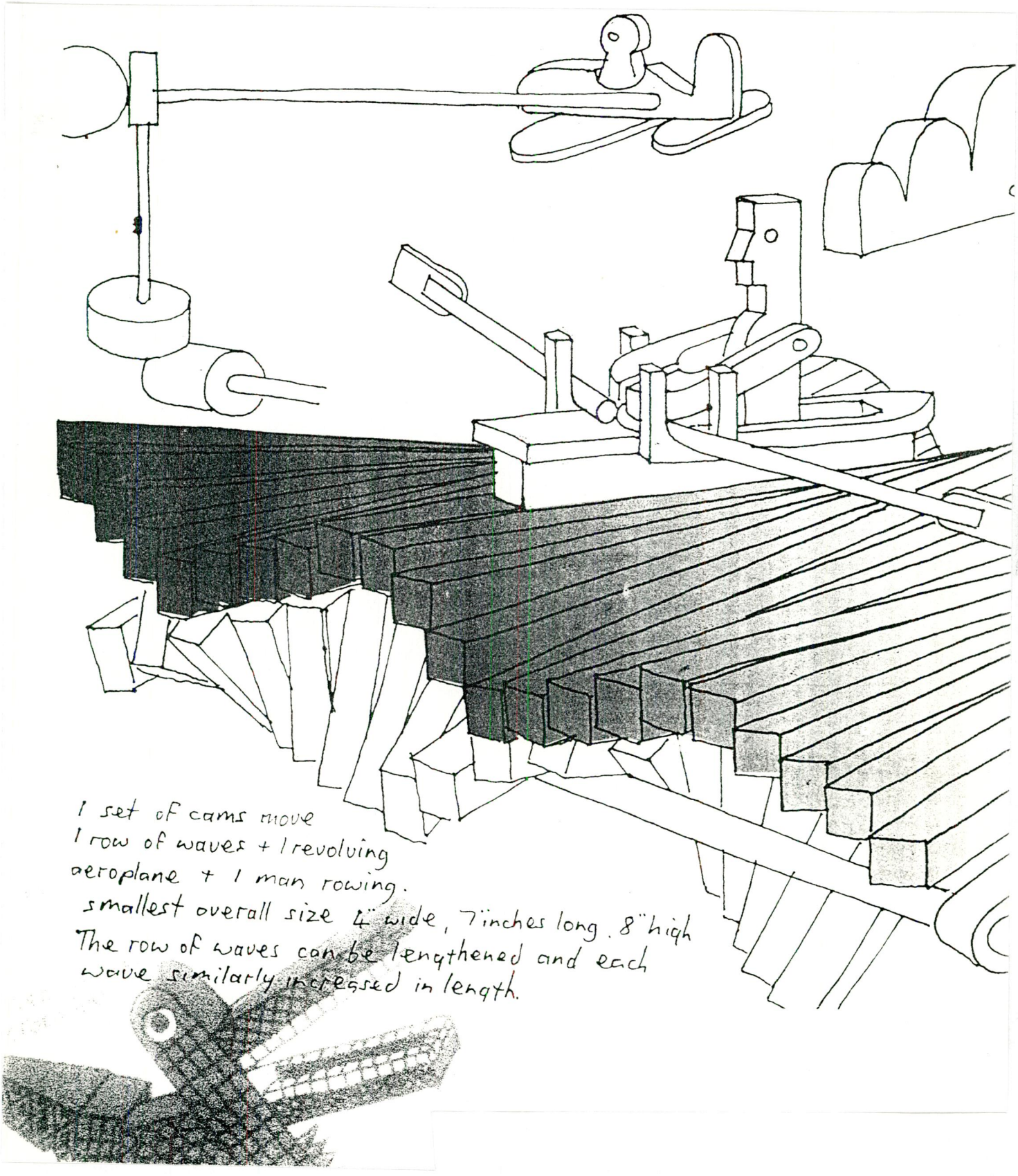


Fig. 5.3, Wave Machine.

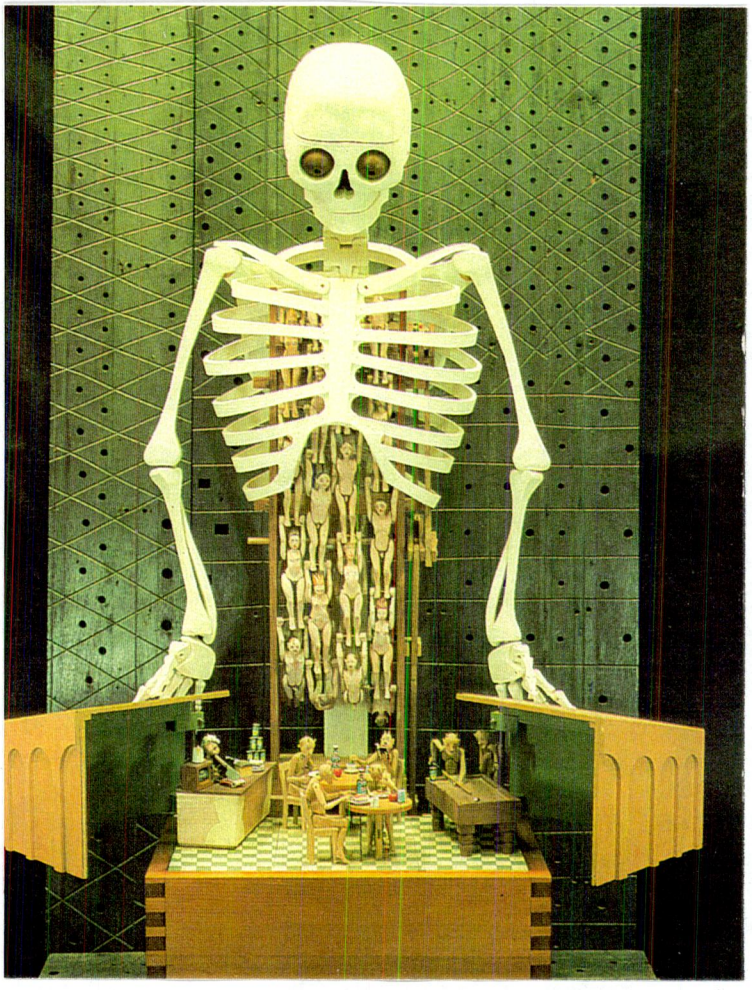


Fig. 5.4, The Last Judgement.

behind the counter serving drinks.

The Last Judgement was put on display in the window of Jackson's shop where the people of Falmouth could come and find themselves in the faces of the figures. The piece became very popular as people kept returning to see it; Jackson and Spooner decided to try an experiment. They attached a 10p slot machine to the window outside the shop and went off for a drink. When they returned about an hour later the machine had almost five pounds worth of 10p's in the slot. Jackson realised that if people were willing to pay 10p to activate one automaton, then surely they would pay more to see an entire collection.

After this she began to keep one of each design that came into her shop for exhibition purposes only. Soon more that half of the shop was taken over by these automata. As their popularity grew, more and more craftspeople began to make this type of art. Tourists and locals alike were fascinated with these new automata and in 1983 the 'Cabaret' giftshop became the 'Cabaret Mechanical Theatre'.

Two years later, the exhibition moved to London where it could catch the "year round tourists trade".[1] The London 'Cabaret Mechanical Theatre', which is the only permanent collection of contemporary automata in Europe, has continued to grow steadily over the years. The collection consists of the work of a growing number of new artists and the original artists from the Falmouth shop, including Paul Spooner, Peter Markey and Tim Hunkin. Many of these automatists, apart from an occasional exhibition, sell their work exclusively through the 'Cabaret Mechanical Theatre'.

Situated in the basement of London's Covent Garden Market, one can sense the excitement of the CMT before even entering it. Standing in glass containers, outside this unusual museum, are a number of automata by Tim Hunkin. There is a **Doctor** *(fig.5.5)* which writes out prescriptions and a **Chiropractor** which will examine if you put your feet in the slots below the machine. These machines, made of painted paper mache and wood, will give you a taste of what you will

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[1] Caroline Smith, 'Cabaret Mechanical Theatre' in Covent Garden, p.2.

Fig. 5.5, The Doctor.

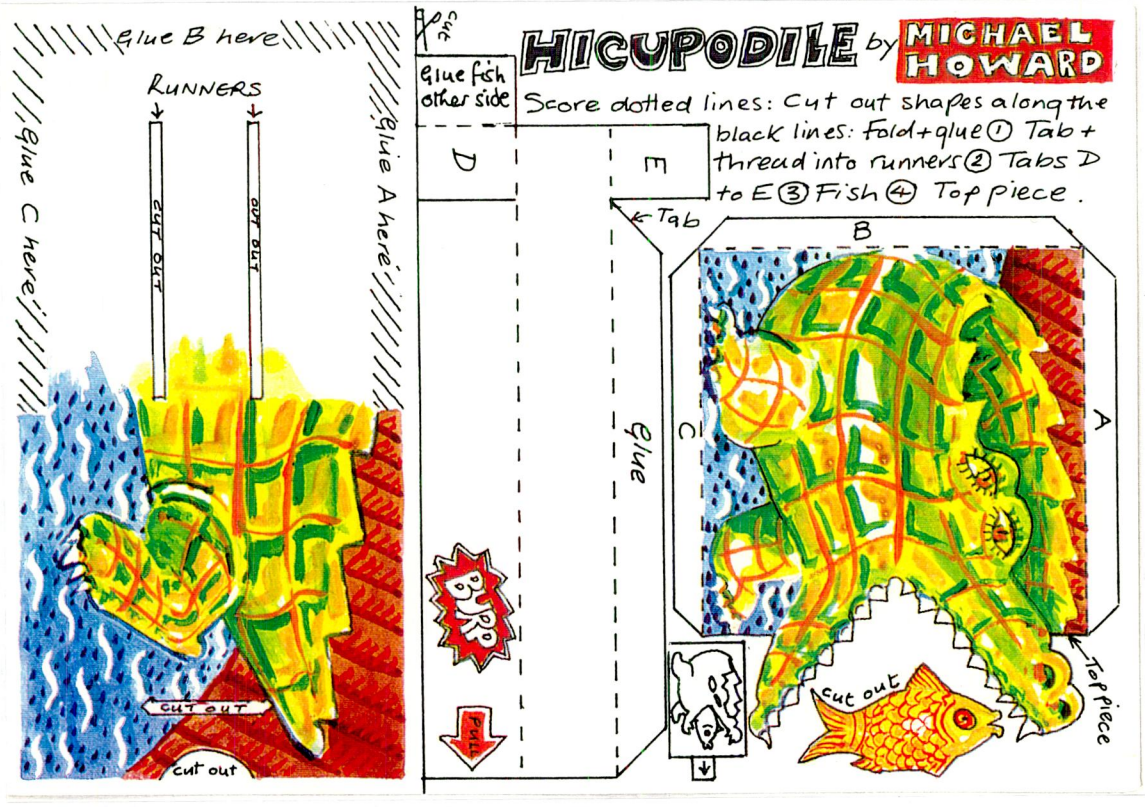


Fig. 5.6, Postcard cutout.

encounter inside. There a number of pieces which can be seen through the arched widows from outside, but you have to wait for someone inside to press to buttons to see them work. The desire to press these buttons for oneself and the booming sound of the carnival music, generally lures people inside.

Directly inside the museum doors there is a shop which sell postcards *(fig.5.6)*, books and souvenirs. There are also card and wooden kits for building your own models of automata by Peter Markey and Keith Newstead *(fig.5.16)*. As well as this there are more coin operated automata including Tim Hunkin's **Crankenstein** (*fig.5.7*) a caricature of the legendary Frankenstein. The seemingly sleeping Crankenstein suddenly opens his eyes when a coin is put in the slot, the viewer is directed to to turn the handle to bring the monster fully to life, the lights glow furiously and Crankenstein rattles his cage. There are a number of dials inside the machine with arrows apparently indicating the amount of life the viewer has conjured up.

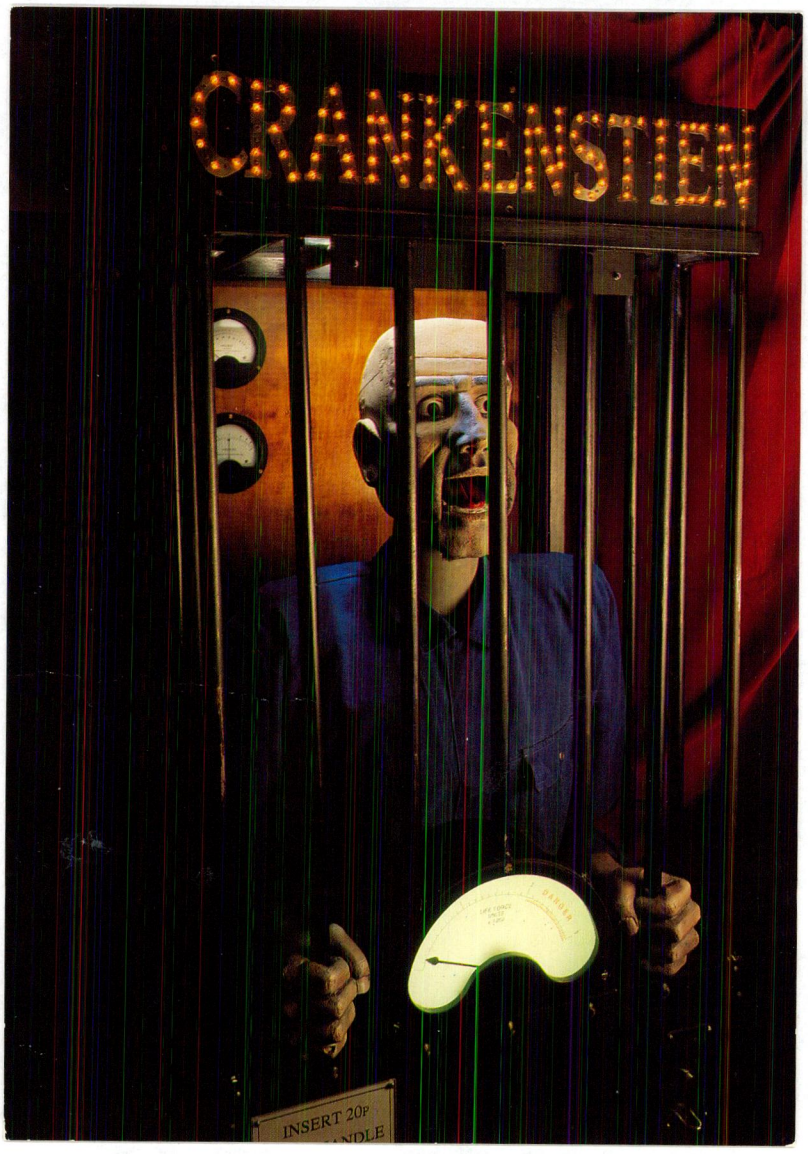


Fig. 5.7, Crankenstein.

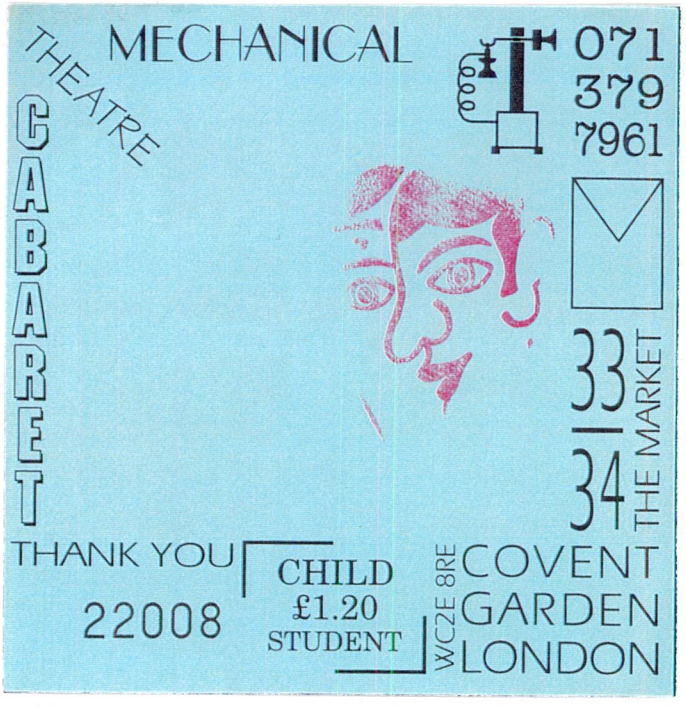


Fig. 5.8, The Ticket Collector and 5.9, The Ticket.

The final part of the museum consists of an exhibition area. All of the pieces here are button operated. One must pay the mechanical **Ticket Collector** (*fig.5.8*) who stamps the ticket and opens the turnstile. Paul Spooner's **The Last Judgement** is on view here, and a huge mechanical music machine, which is the source of the carnival music. The room is quite small but is covered from wall to wall with small automata in glass cases. In the centre of the room are a number of larger pieces including those by Keith Newstead.(*figs.5.10-5.12*) His **Flying Fettucinis** which can be seen through the outside windows, is based on the circus trapeze. This performance, however satirical, is similar in many ways to the real trapeze. I found that while watching these automata flying through the air, although I knew that they were machines, I actually feared for their safety.

The main body of the work surrounding the walls of the exhibition are is by Paul Spooner. I will discuss his work more in the next chapter. Scattered among the many works of Spooner are automata Tim Hunkin, Ron Fuller, Matt Smith *(fig.5.13)*, Tony Mann *(fig.5.14)* and Michael Howard. Peter

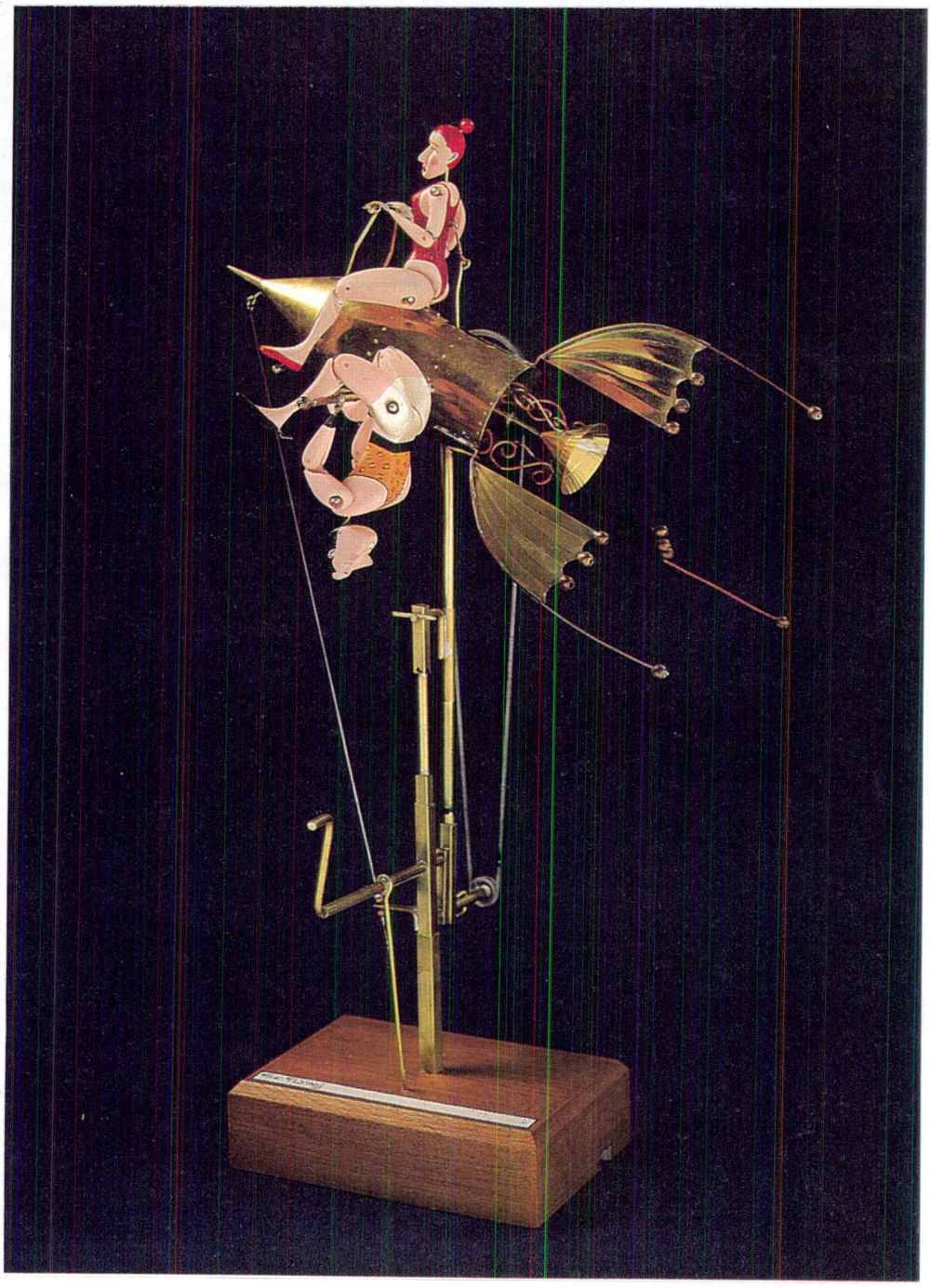


Fig. 5.10, Flying Fettucinis.

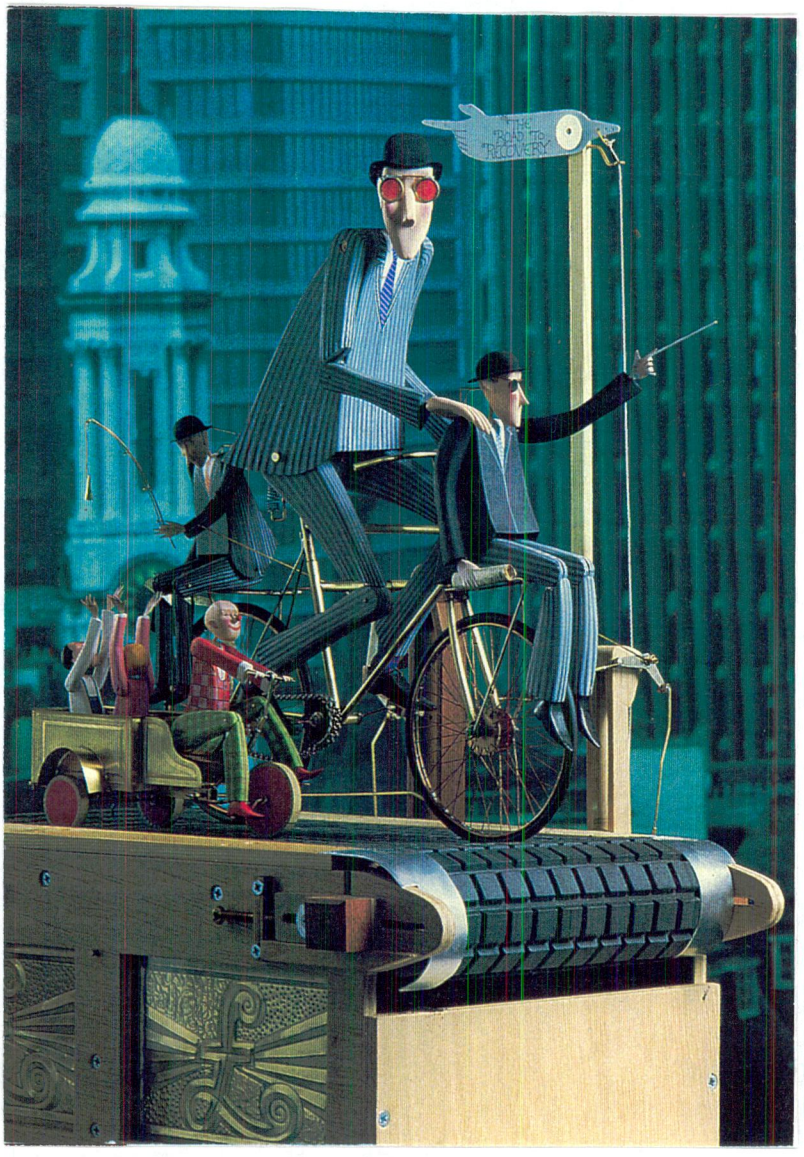


Fig. 5.11, The Economic Cycle

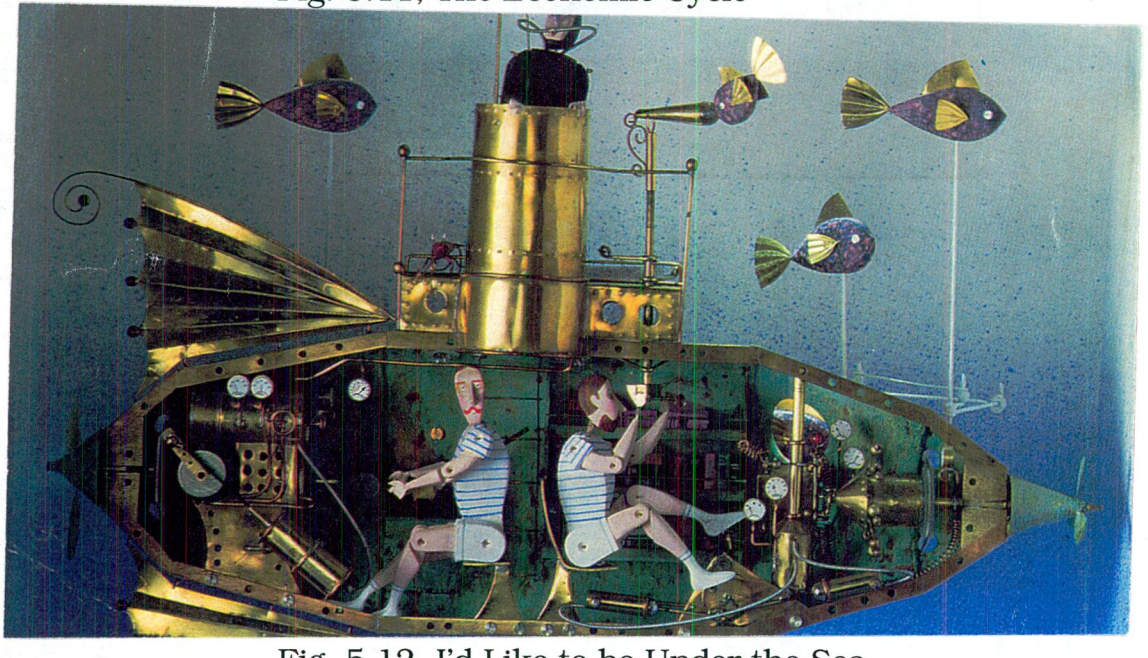


Fig. 5.12, I'd Like to be Under the Sea.

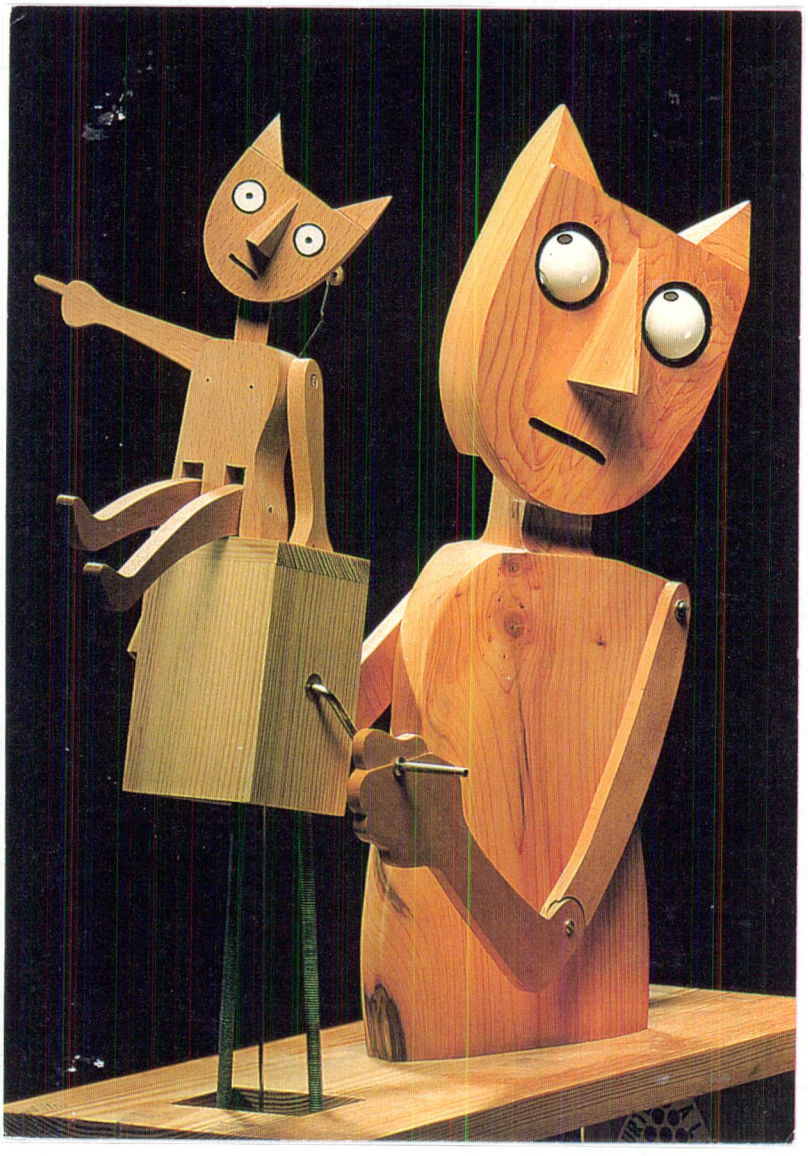


Fig. 5.13, Barecat.

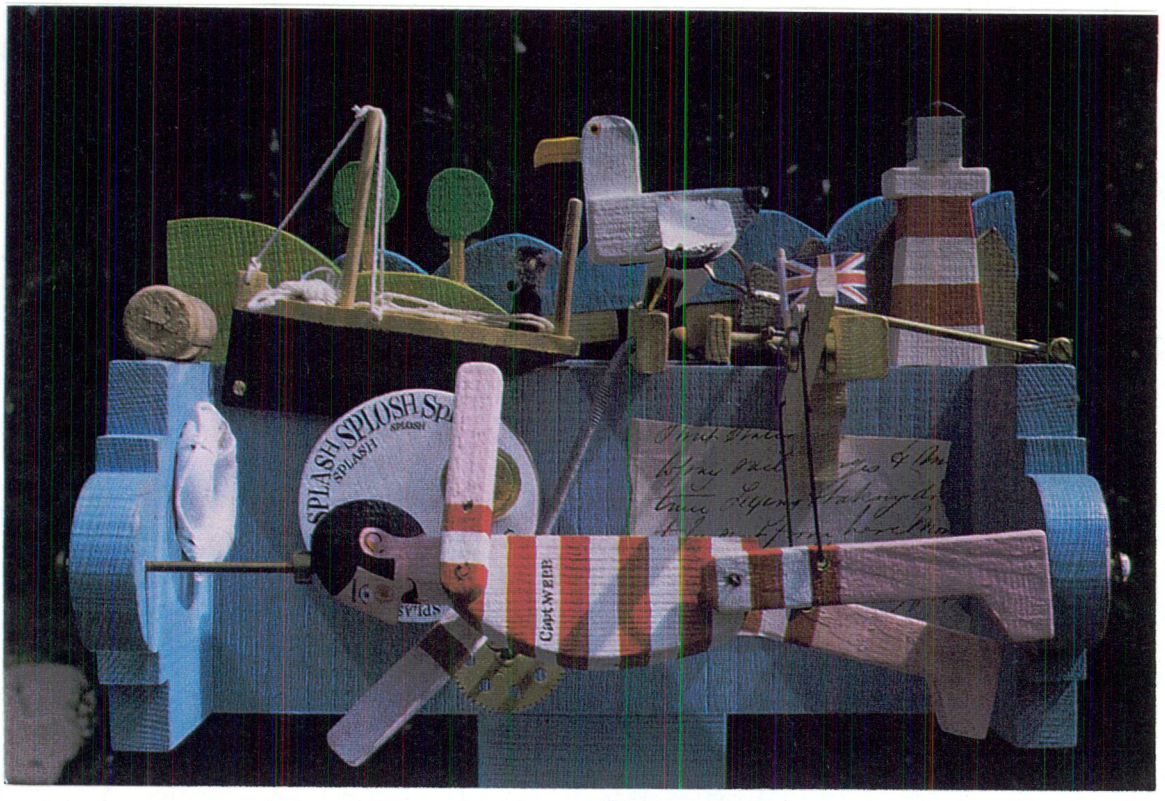


Fig. 5.14, Splish, Splash, Splosh.

Fig. 5.15, Swimmer.

Markey's wave machines are here as are the rough tin sculptures of Andy Hazell and Lucy Casson.

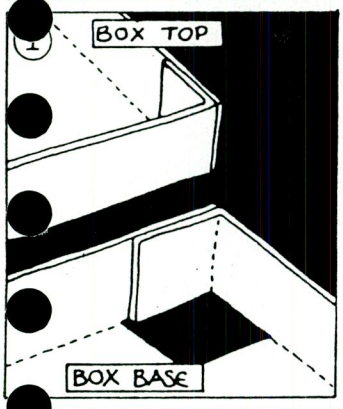
Over 100,000 people visit the CMT each year and the comment book is filled with cheerful and positive remarks from adults and children alike. Parents often tend to forget that they have brought their children along as they become engrossed in the machines. They want to figure out how the mechanisms work and what these little figures are trying to tell them. Above all I think that they are engrossed by the idea of contol and bringing these objects to life.

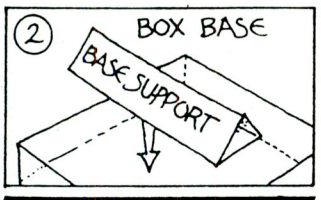
Fig. 5.16, Cardboard cutout of an Automaton by Keith Newstead.

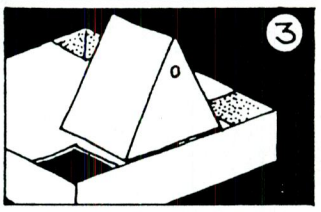
INSTRUCTIONS

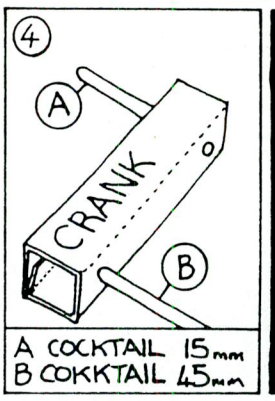
MAKING HOLES
CUT CROSS
PIERCE

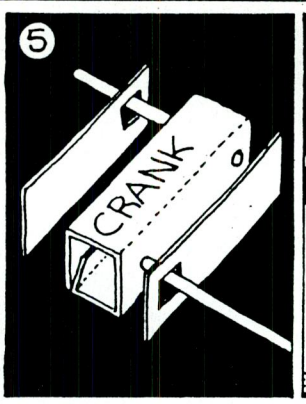
USE A BLUNT KNIFE TO SCORE

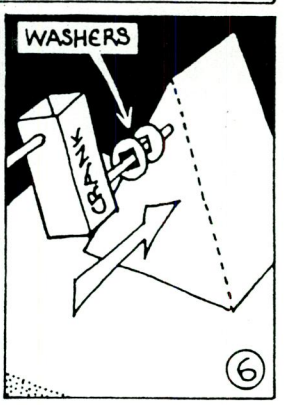


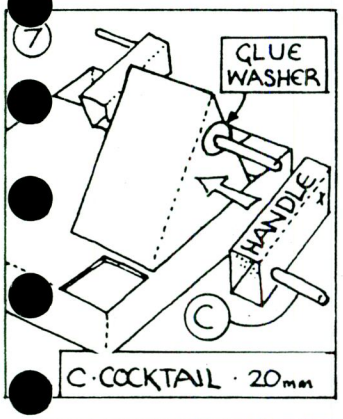


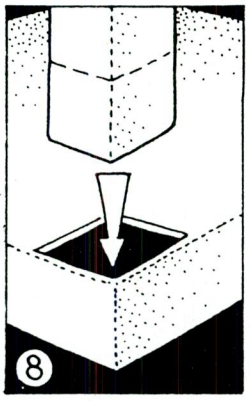


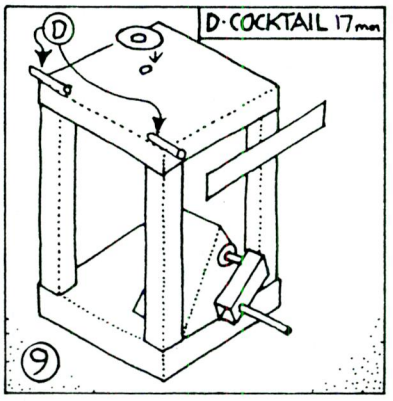


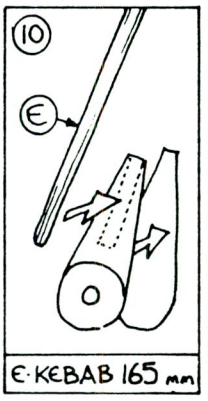


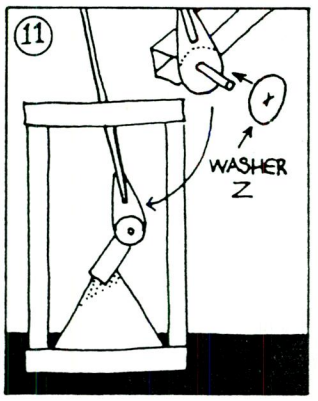


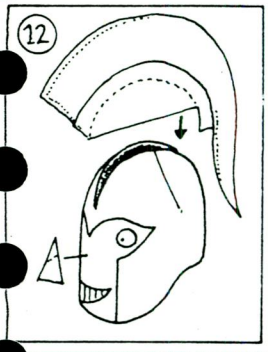


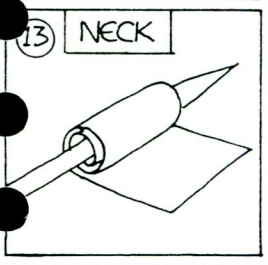


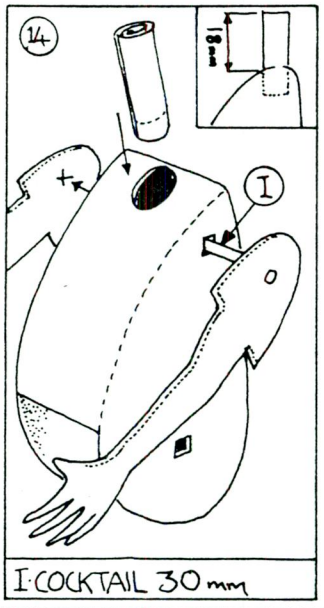


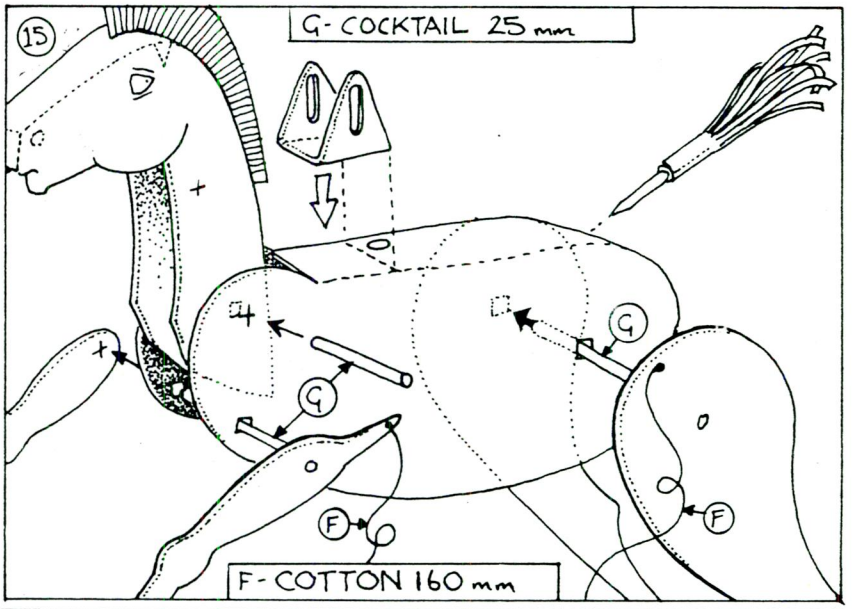


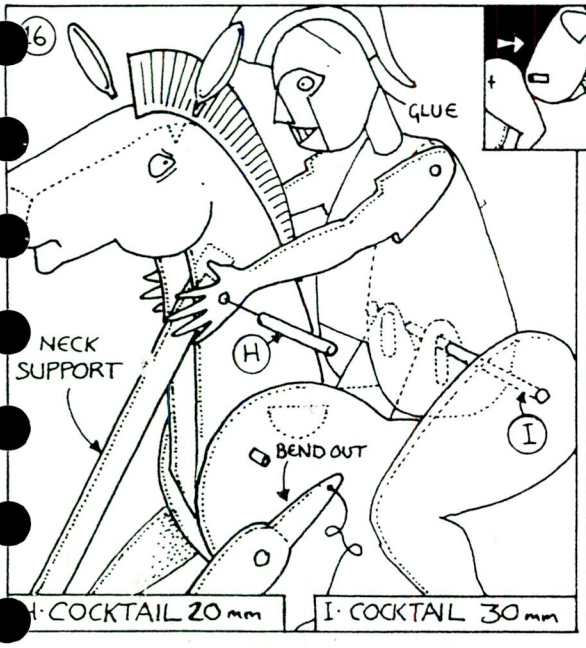


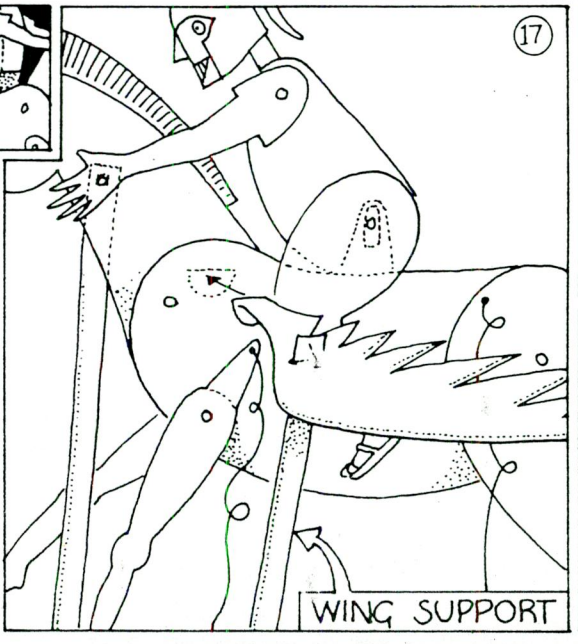


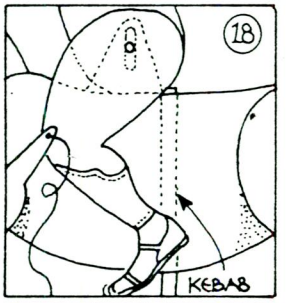


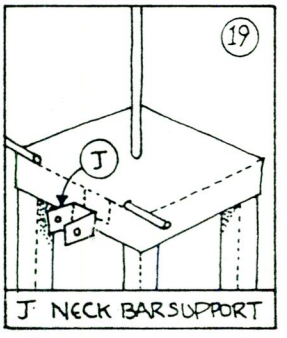


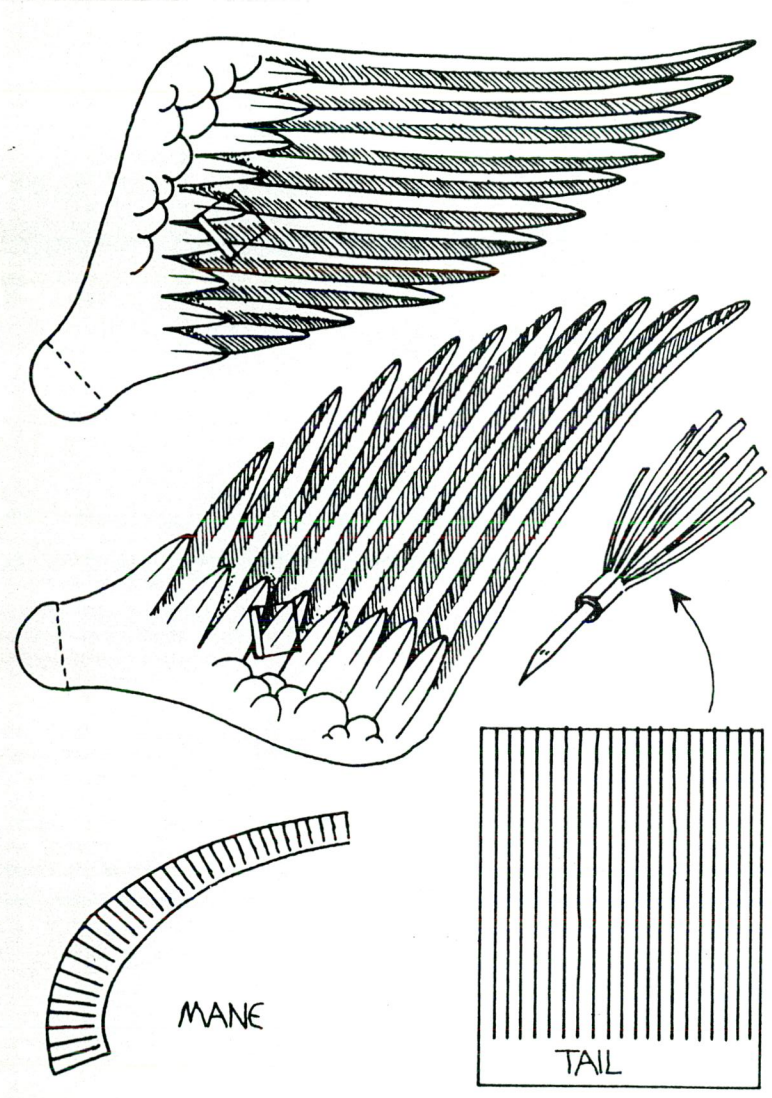


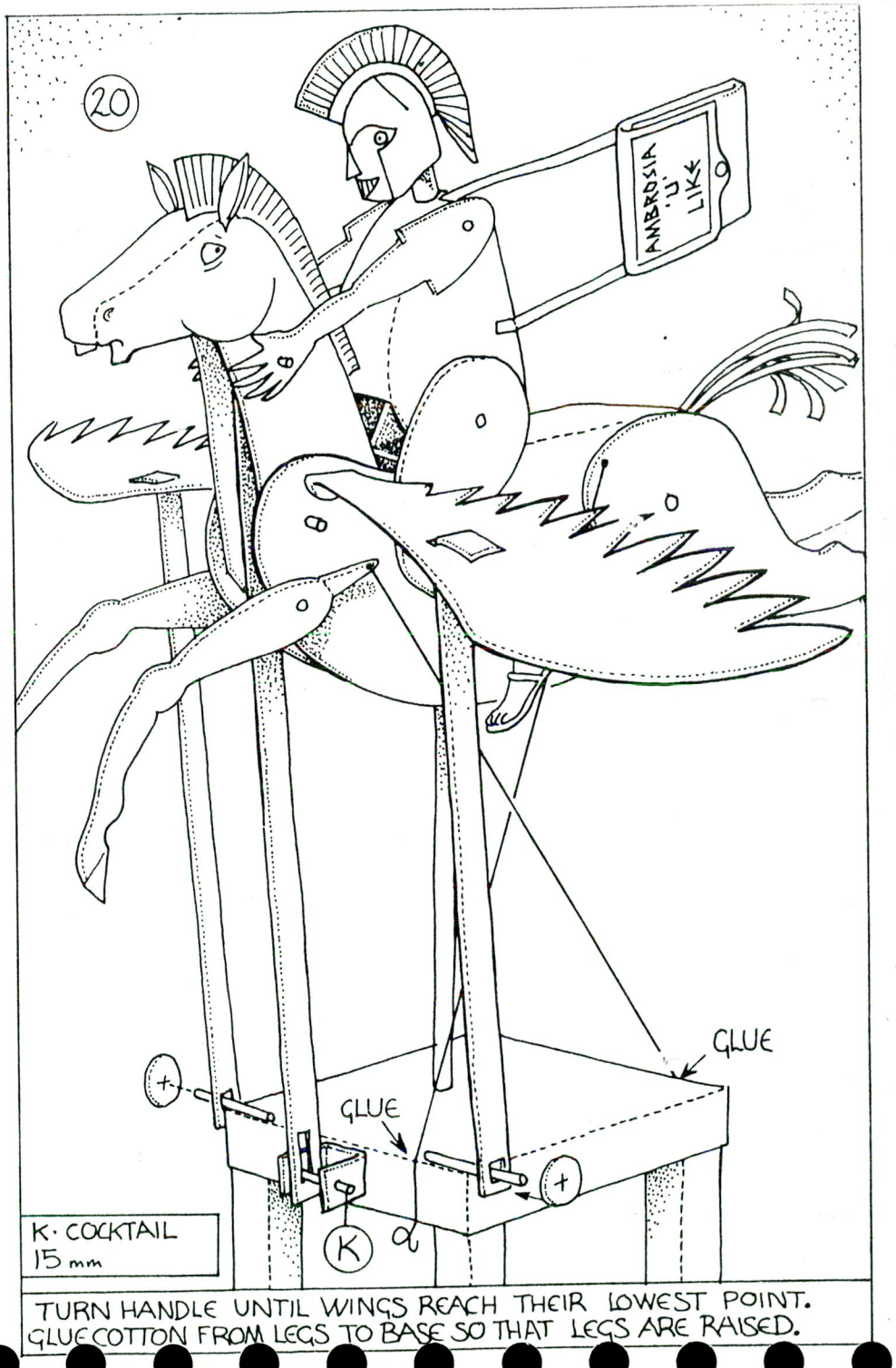


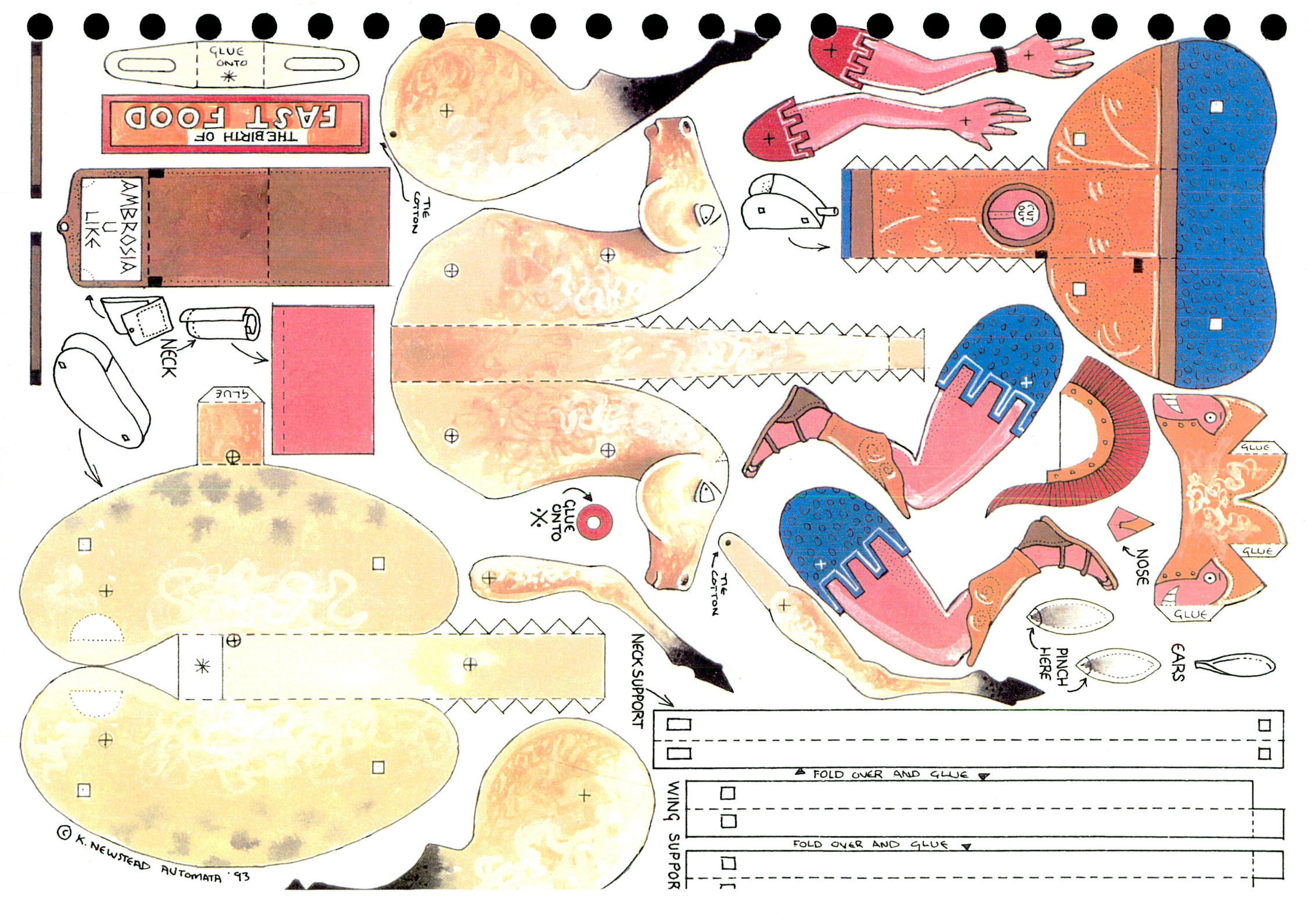







MANE
TAIL


20
AMBROSIA
I
LIKE
GLUE
GLUE
K · COCKTAIL
15 mm
TURN HANDLE UNTIL WINGS REACH THEIR LOWEST POINT.
GLUE COTTON FROM LEGS TO BASE SO THAT LEGS ARE RAISED.


GLUE ONTO
THE BIRTH OF
FAST FOOD
AMBROSIA U LIKE
TIE COTTON
CUT OUT
NECK
GLUE
GLUE ONTO
TIE COTTON
NOSE
GLUE
GLUE
GLUE
PINCH HERE
EARS
NECK SUPPORT
FOLD OVER AND GLUE
WING SUPPOR
FOLD OVER AND GLUE
© K. NEWSTEAD AUTOMATA '93

GLUE TO TOP
GLUE TO BASE
GLUE
GLUE TO TOP
GLUE
GLUE TO TOP
GLUE TO BASE
GLUE
GLUE TO TOP
GLUE
© K NEWSTEAD AUTOMATA '93
GLUE
GLUE
REMOVE
REMOVE
GLUE CRANK SUPPORT HERE
FRONT
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GLUE
GLUE
BASE
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FRONT
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TOP
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CRANK WASHERS
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CRANK SUPPORT
BASE SUPPORT

Chapter 6.

Paul Spooner.

Paul Spooner is undoubtedly the foremost automatist in Britain today. He studied as a mechanical sculptor at Cardiff Art College but worked as a lorry driver until he began making automata for the 'Cabaret' gift shop in the early '80's. He continued making automata for Susan Jackson's exhibition and his work now makes up the main body of work for the 'Cabaret Mechanical Theatre'.

Like most of the contemporary automatists, Spooner's work uses humour and satire as a fundamental element. There is, however, often an underlying theme which is more sinister. One of Spooner's favorite subjects for his work is the Egyptian god, Anubis. Anubis was the god of death and funerals, a jackal-headed god who was a reminder of the inevitibility of death. Spooner's original **Anubis** (*fig.6.1*) has the following inscription on the back of the piece:

> *Nowadays civilised folk recoil from the trappings of death. It was not always so; indeed the devotees of ANUBIS regarded his tatty windings as things of ineffable*

Fig. 6.1, ANUBIS.

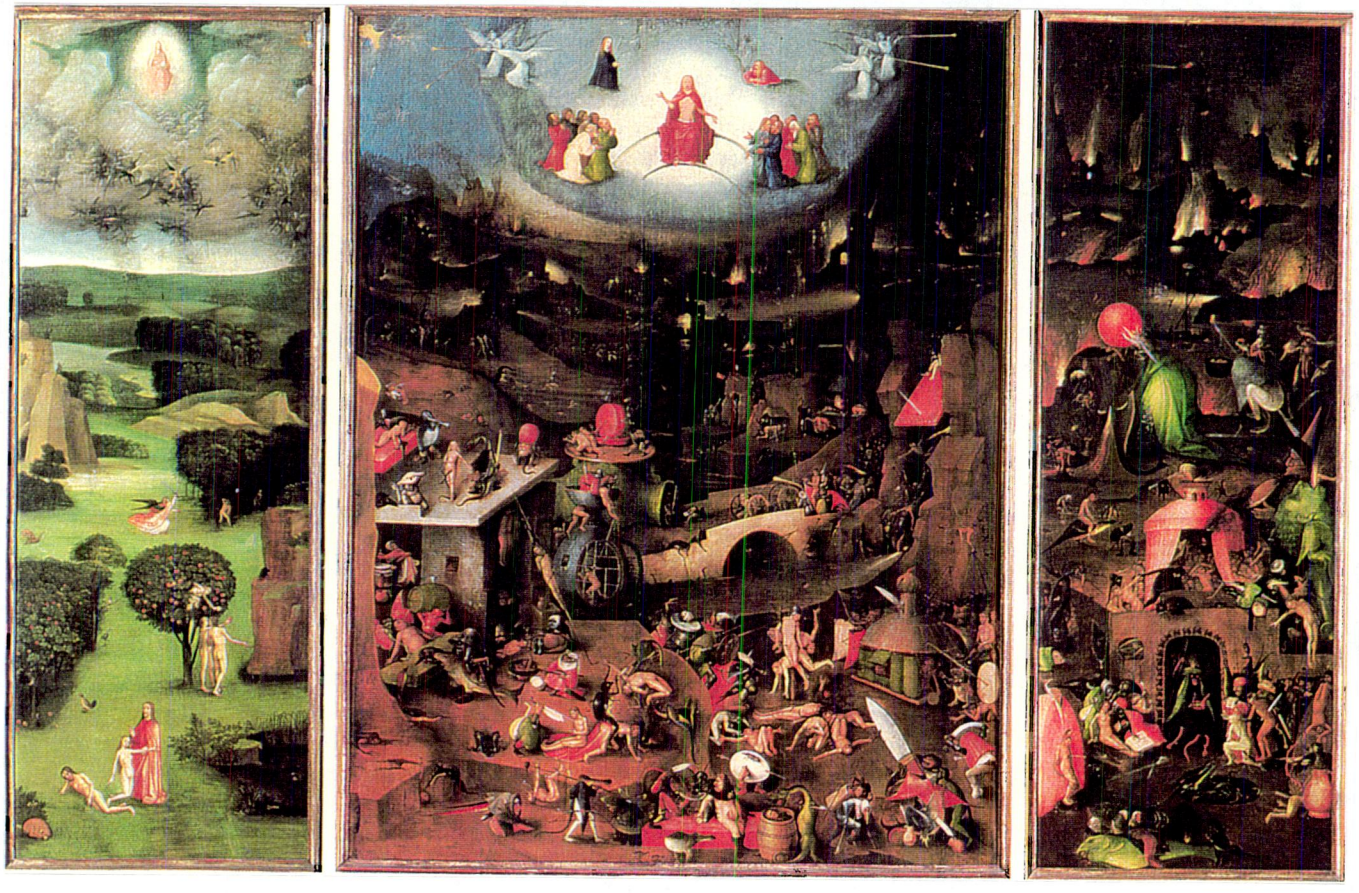

Fig.6.2, The Last Judgement.

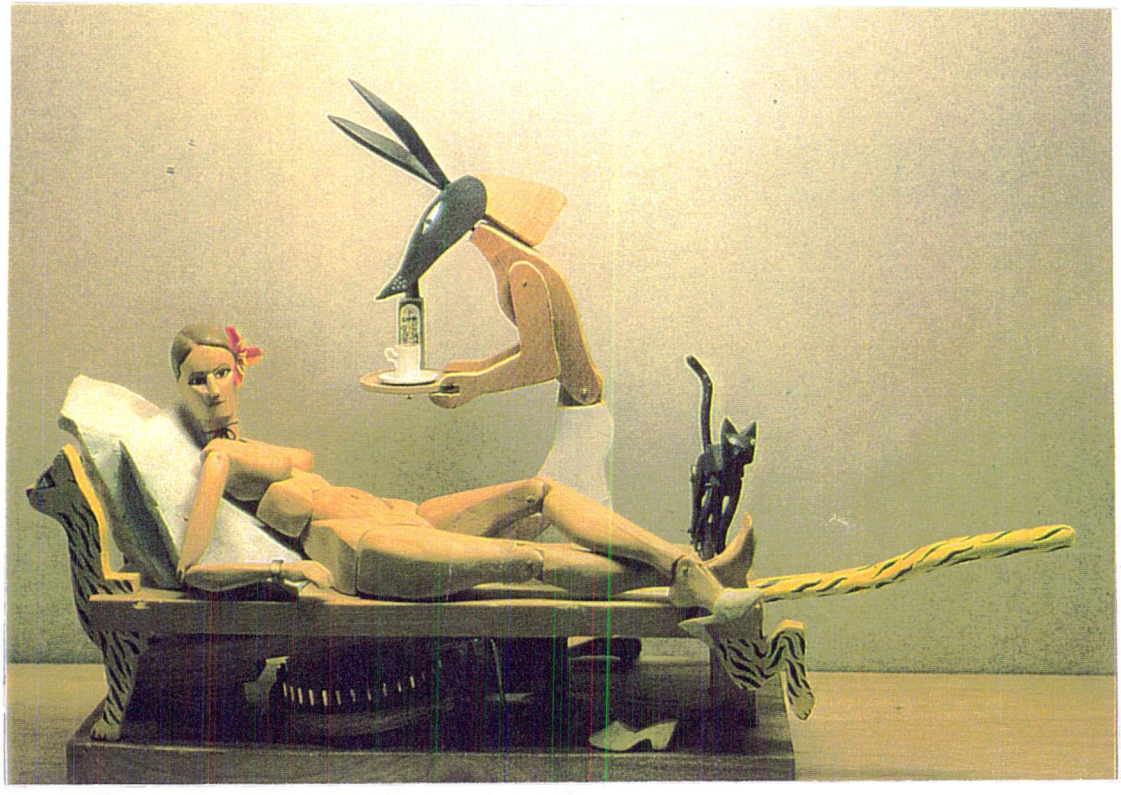

Fig. 6.3, Manet's Olympia.

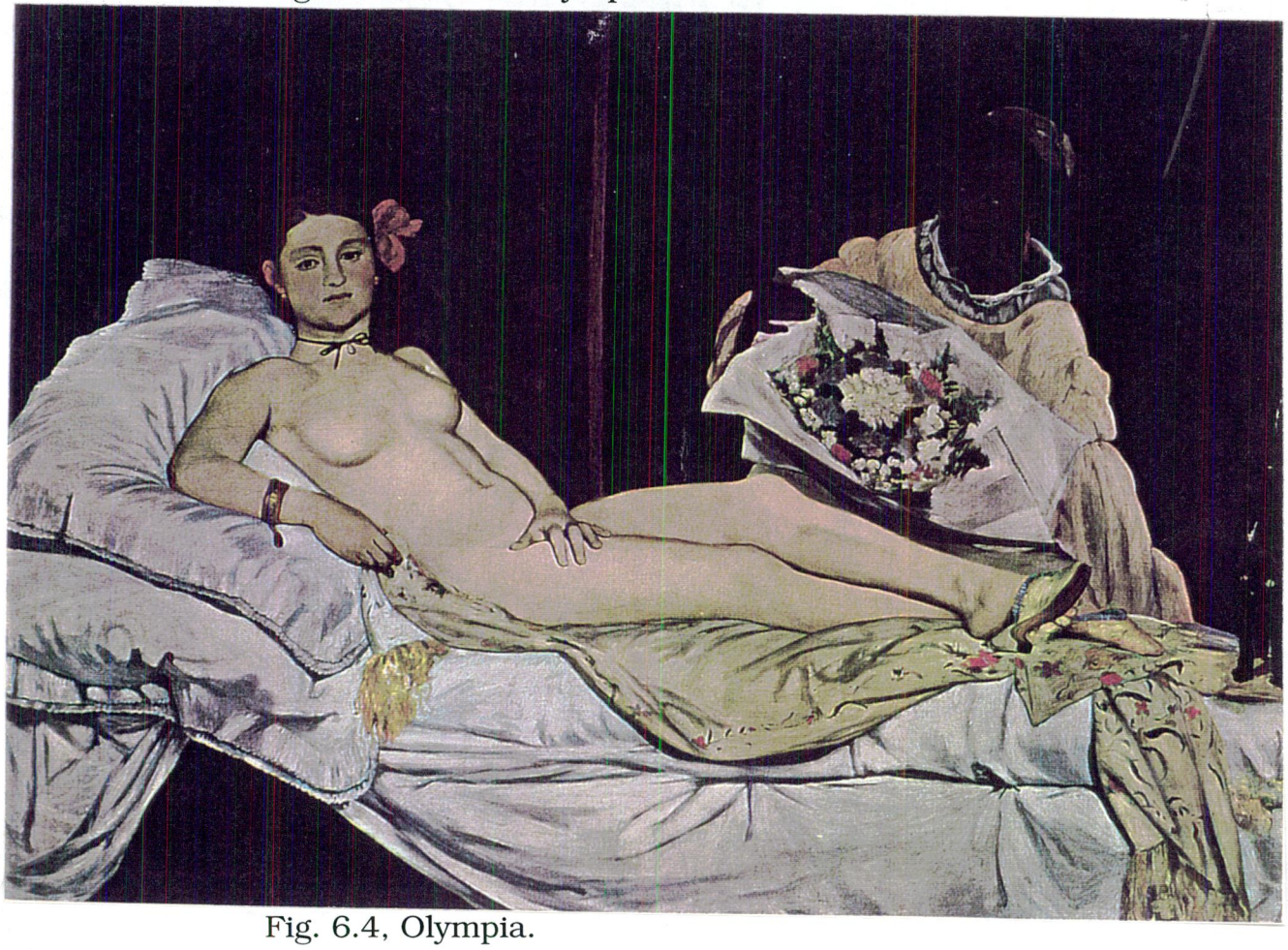

Fig. 6.4, Olympia.

beauty.[1]

Anubis is a wooden automaton of the torso and head of the jackal-headed god. He holds a mask over his face and when the handle is turned, he slowly removes the mask from his face, revealing a his mummified face and then the mask suddenly snaps back over his face again. From this, Spooner made a series of Anubi in various roles. Like Sam Smith and his harpies, Spooner uses Anubis as a "memento mori".[2]

Spooner gets his ideas from a variety of sources. **Anubis** is based on an Egyptian myth: **The Last Judgement** is based on a painting by Hieronymous Bosch (*fig.6.2*) and his **Manet's Olympia,**(*Fig 6.3*) with a jackal-headed servant serving drinks to a reclining nude, is obviously derived from another famous painting. (*fig.6.4*) His **Trainee Banana Ripener** (*fig 6.5*) is based on an advertisement he heard on the radio: he

> *heard that Fyffes bananas were advertising for a trainee banana ripener. This produced an image in my in my mind (as it would in many people's minds) and I thought of a way of turning it into a machine: a table with a rotating wooden*

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[1] Rosemary Hill, Anubis, Crafts, p.1.

[2] Rosemary Hill, Anubis, Op.cit, p.1.

cube on each of four faces, a banana, three green, one yellow. A dopey looking boy sits at the table. With one hand he holds a cover that goes over the bananas' cube. The cube is covered as it rotates, then he lifts the cover to show the next banana in the sequence, green, green, green and then when yellow comes up a bell rings.[3]

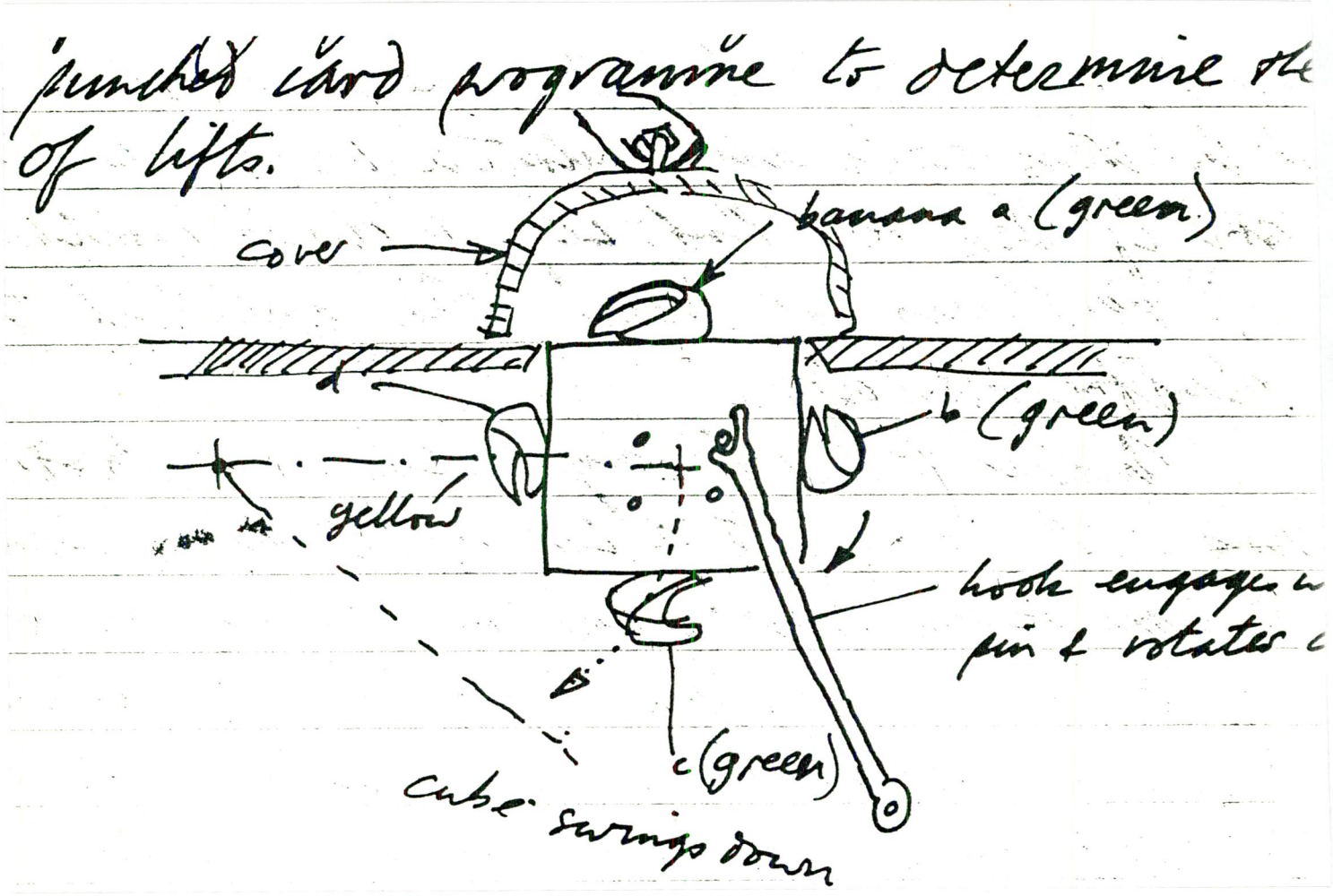

Fig. 6.5, Trainee Banana Ripener.

Other works by Spooner include **A Cat Drinking Someone Elses Milk**, (*fig.6.6*) in which a fat cat laps at a bowl of milk while his tail goes up and down, his ears twitch and his

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[3] Paul Spooner, letter, 15th Jan.1995, p.3.

eyes look cautiously around from side to side. **A Cat Drinking Poisoned Milk** is very similar in form to this piece, but in this piece while the cat enjoys his milk and his tail wags up and down, suddenly his tail flops, his eyes fall out of their sockets and his legs collapse beneath him as he drops dead. Unlike the 18th and 19th century automata, Spooner and the contemporary makers do not attempt to make their work look realistic, but rather make caricatures of what is real.

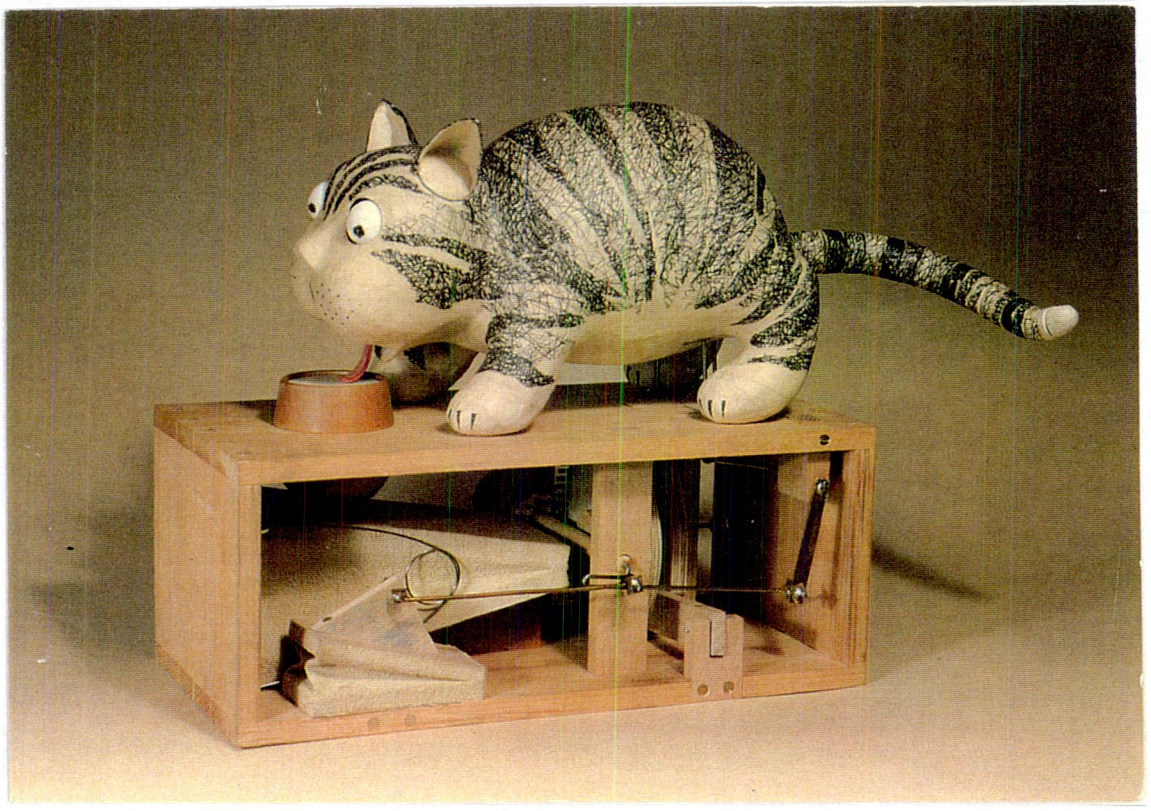

Fig. 6.6, Cat Drinking Someone Elses Milk.

If you compare Spooners **Bad News** (1994) (*fig. 6.7*) with the 19th century automaton **The Conversation** (c.1890) (*fig.6.9*) by Leopold Lambert, the difference between the old and the contemporary is apparent. Both pieces depict a couple sitting together having a conversation. Both couples are in costume. Lambert's couple are elaborately dressed, the girl in a frilly dress and veil, the man in an exquisite suit, holding up his glasses to have a better view of the girl he is chatting to. Their costumes cover the joints as though the artist was trying to conceal the fact that the couple are clockwork; he would rather have us believe that the couple is real.

Spooner's couple are also in costume, but theirs is for a fancy dress party. The boy is dressed in a boy scout uniform, which Spooner claims is not rented for the occasion but that the uniform and its various badges actually belong to the boy.[4] The girl in this case is very chic. She is dressed in a body clinging catsuit and is obviously not suited to her boyscout boyfriend. She tturns her head and says something to him and

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[4] Paul Spooner, Machinations, Channel 4, 1995.

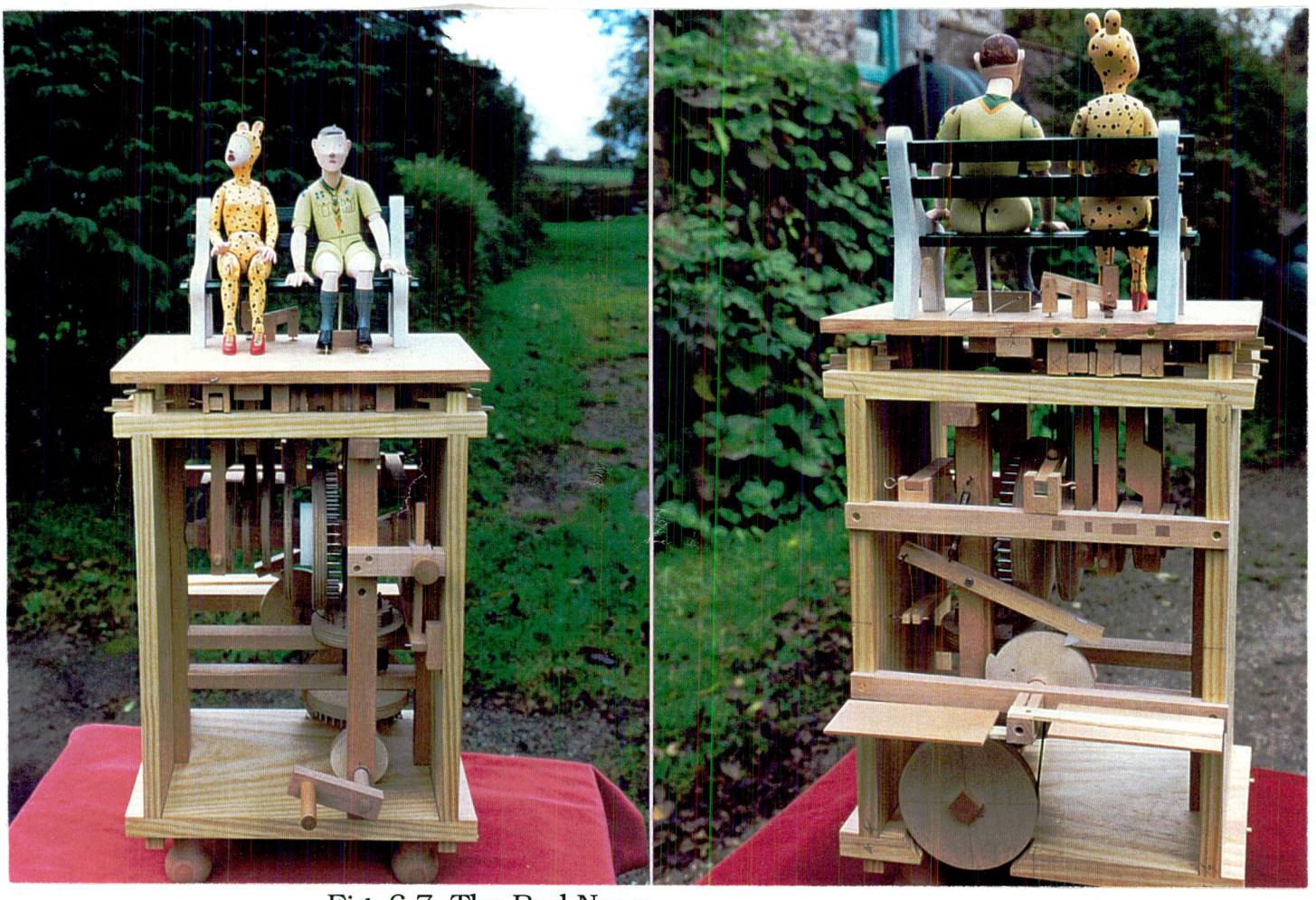
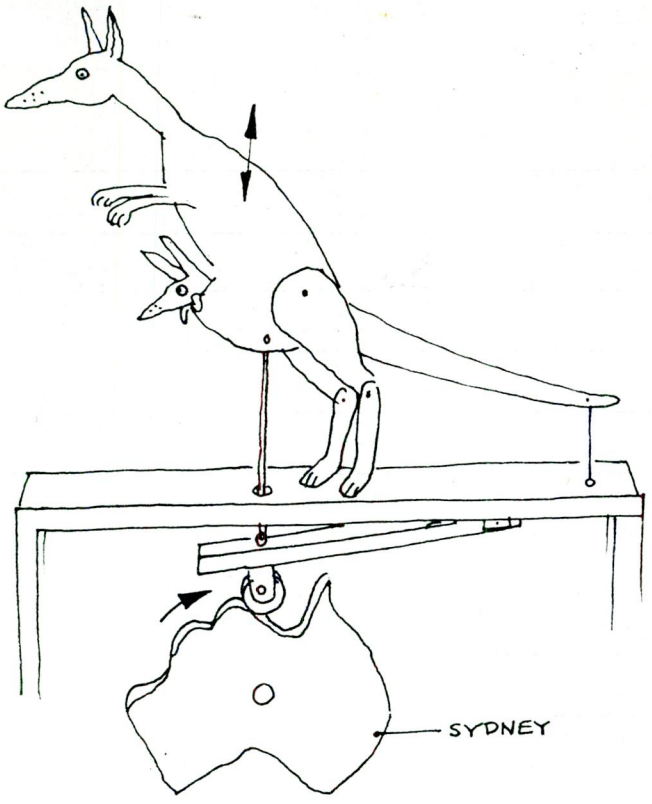


Fig. 6.7. The Bad News.

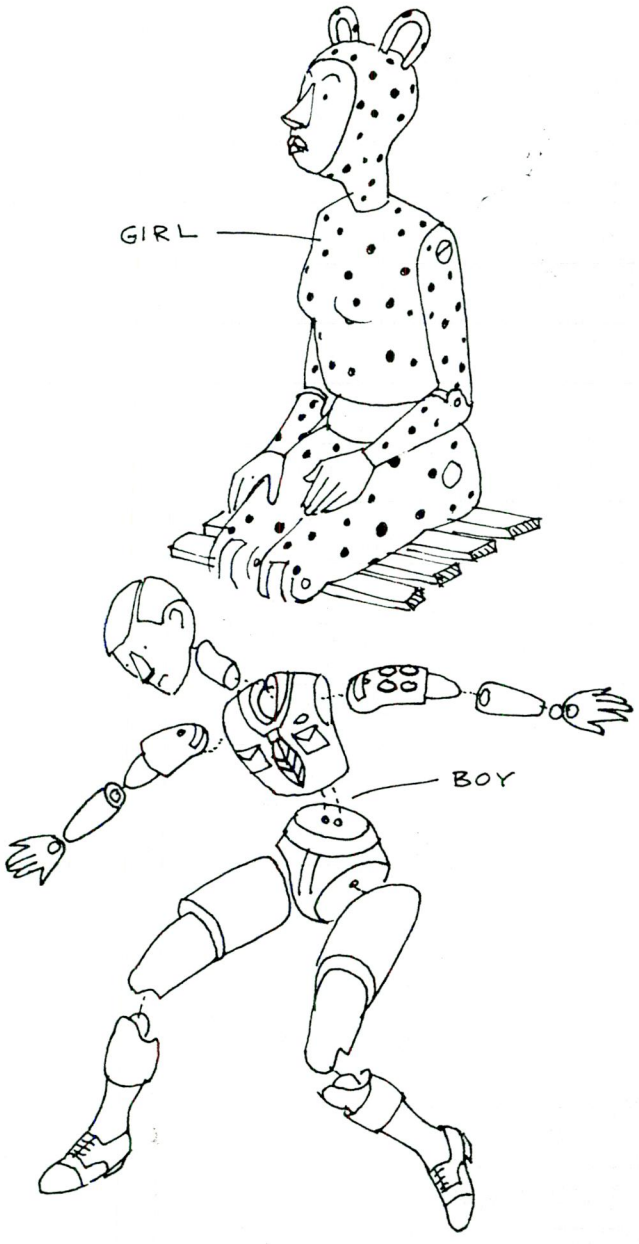
Fig. 6.9. The Conversation.

Fig. 6.8. Illustrations for The Bad News by Paul Spooner from the Booklet which accompanied the Channel 4 television series, Machinations.



A MECHANICAL JOKE

I LIKE TO SHOW THE ALLIANCE BETWEEN A MECHANISM AND THE SCENE IT ACTIVATES.



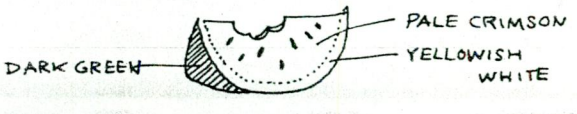
BAD NEWS

IN MY 'BAD NEWS' PIECE, A GIRL TELLS A BOY THAT SHE NO LONGER LOVES HIM. SHE IS DETERMINED ON A COURSE OF ACTION. THIS IS REFLECTED IN THE BOX OF MACHINERY. HER ACTIONS ARE DRIVEN BY A WOUND-UP SPRING THAT IMPARTS A POWERFUL DRIVING FORCE TO THE CAMSHAFT, MAKING HER MOUTH THE DREADED WORDS THEN GET UP TO LEAVE.

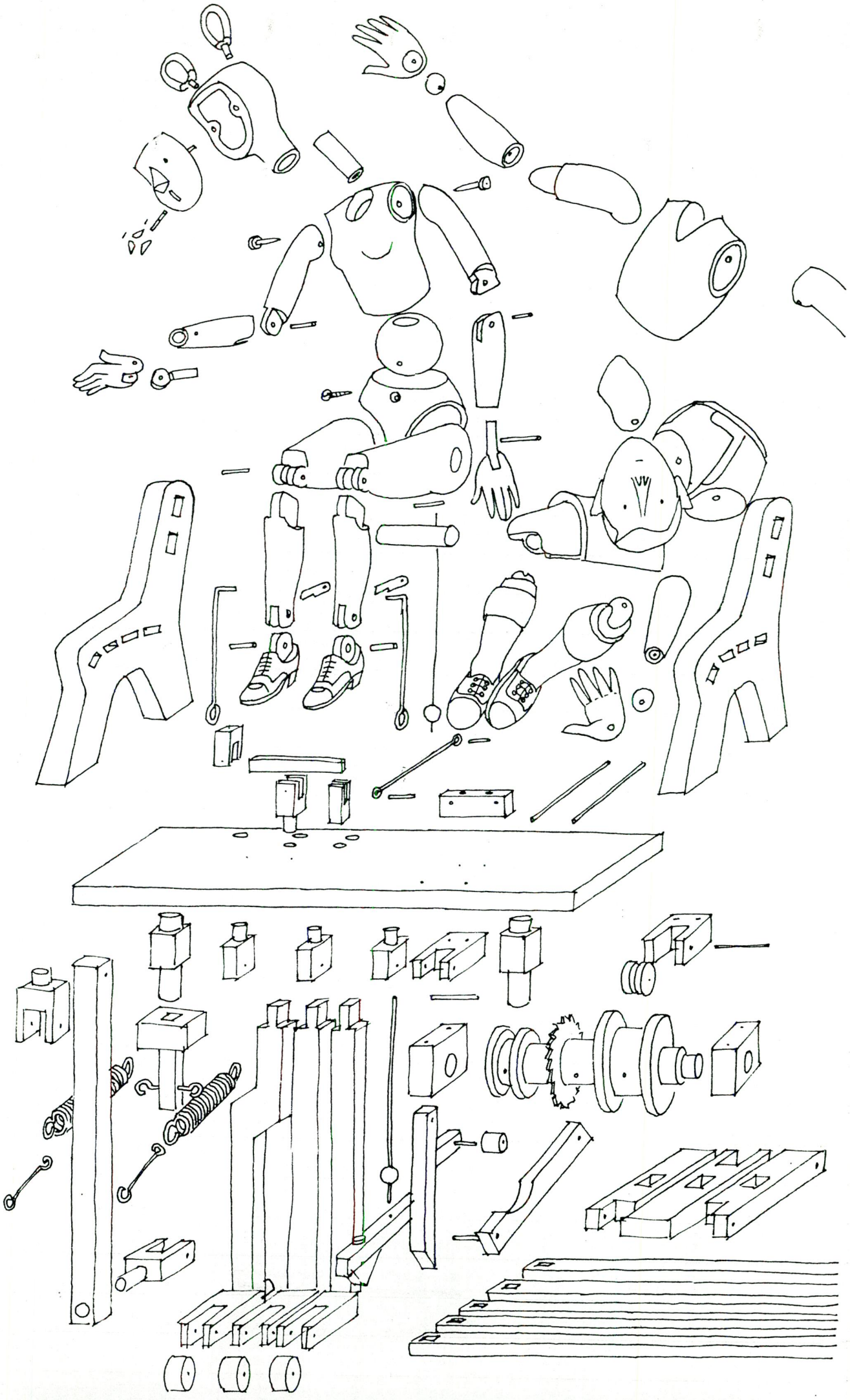
HE IS A BAG OF NERVES, DREADING THE BAD NEWS AND READY TO FALL TO PIECES. HIS MECHANISM, TRIGGERED BY HERS, SIMPLY ALLOWS HIM TO COLLAPSE

THEIR COSTUMES - HERS A YELLOW JAGUAR OUTFIT, HIS A SCOUT UNIFORM - ARE JUST FOR FUN.

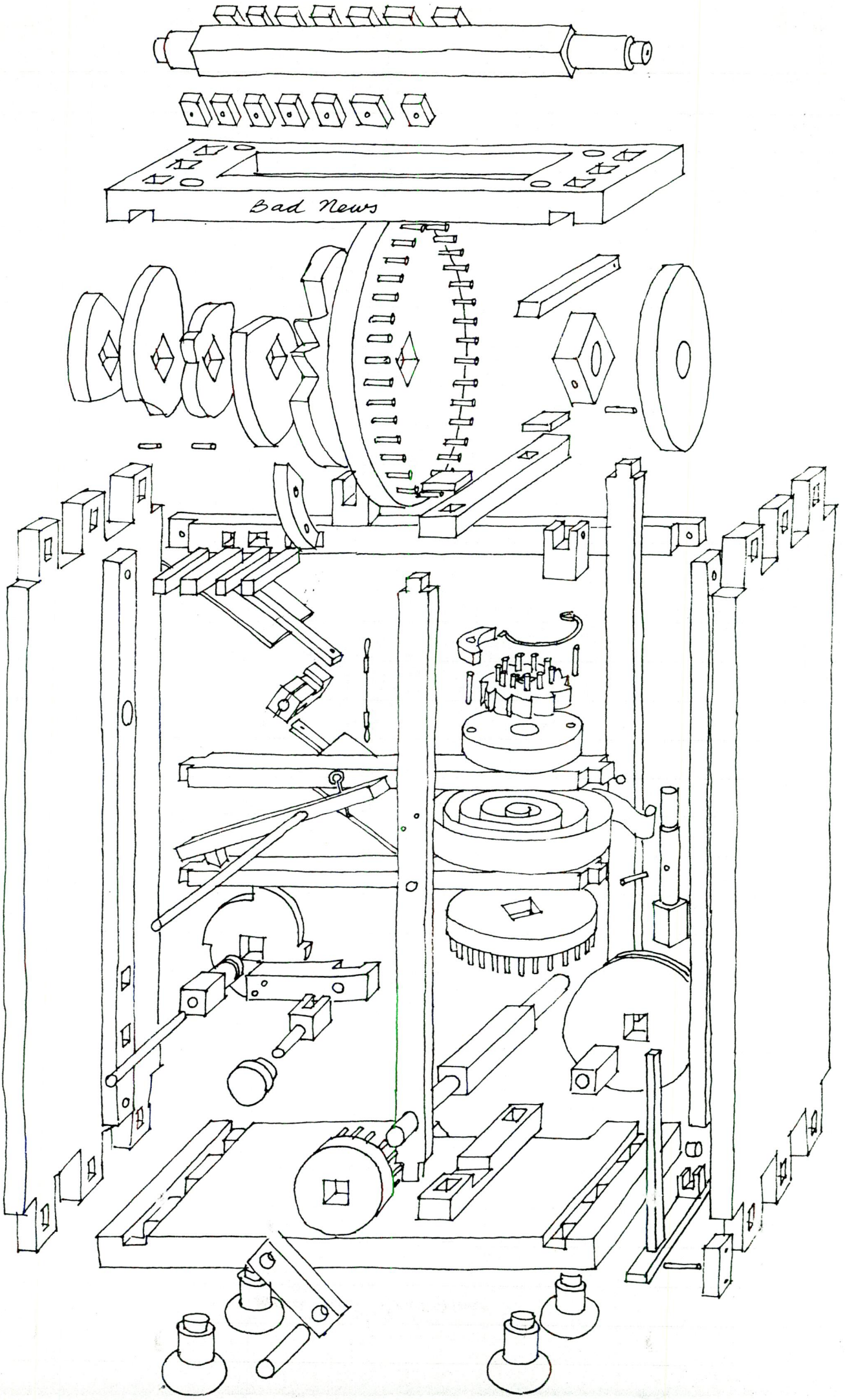
WHEN ONE OF MY MACHINES LOOKS A LITTLE DULL TO ME, I LIKE TO DRESS IT UP WITH EXTRA BITS. I'VE USED A LOT OF MODEL WATER-MELONS LATELY.



BAD NEWS : AN EXPLODED VIEW



MOKE EXPLODED BAD NEWS



as she stands up to leave, the boy literally falls to pieces; his arms fall out of their sockets, his head falls off and he tumbles to the ground. She has not only broken his heart, but his entire body.

Spooner makes no attempt to cover any of the joints. In fact, he makes them a feature of the piece. Instead of fabric for the clothes to conceal the fact that the couple is mechanical, their clothes are painted on and their joints are clear to see. In fact, Spooner emphasises that his machines are not real by exaggerating their actions and making them ridiculously unrealistic. While contemporary automatists like Spooner do not try to make their work look realistic, they do, however, try to portray real emotions. Indeed someone who has just broken up with a beautiful girlfriend may feel as though they are literally being torn apart.

The workings of the machine are also clearly visible in all of Spooner's pieces. In **The Bad News** a couple on a bench are mounted on a huge box, which is bigger than the piece itself, and all of the countless cogs, cams, and levers are open for the

audience to calculate how the piece works. This is in direct contrast to the work of Leopold Lambert and his peers who insisted on hiding all mechanisms from human sight.

Fig. 6.10. Anubis in Montmartre.

Fig.6.11, The Flight into Egypt.

When Paul Spooner cannot find something amusing around him to inspire a machine, he simply turns to the black humour of Anubis,like **Anubis in Montmartre** *(fig.6.10)*. He says:

> *The main thing about my work is that I urgently want to make jokes. If I can't find an actual joke like* ***The Banana Ripener*** *I resort to taking normal situations and making them silly by turning the people into jackals.*[5]

Fig. 6.12 and 6.13 are illustrations from the notebooks of Paul Spooner.

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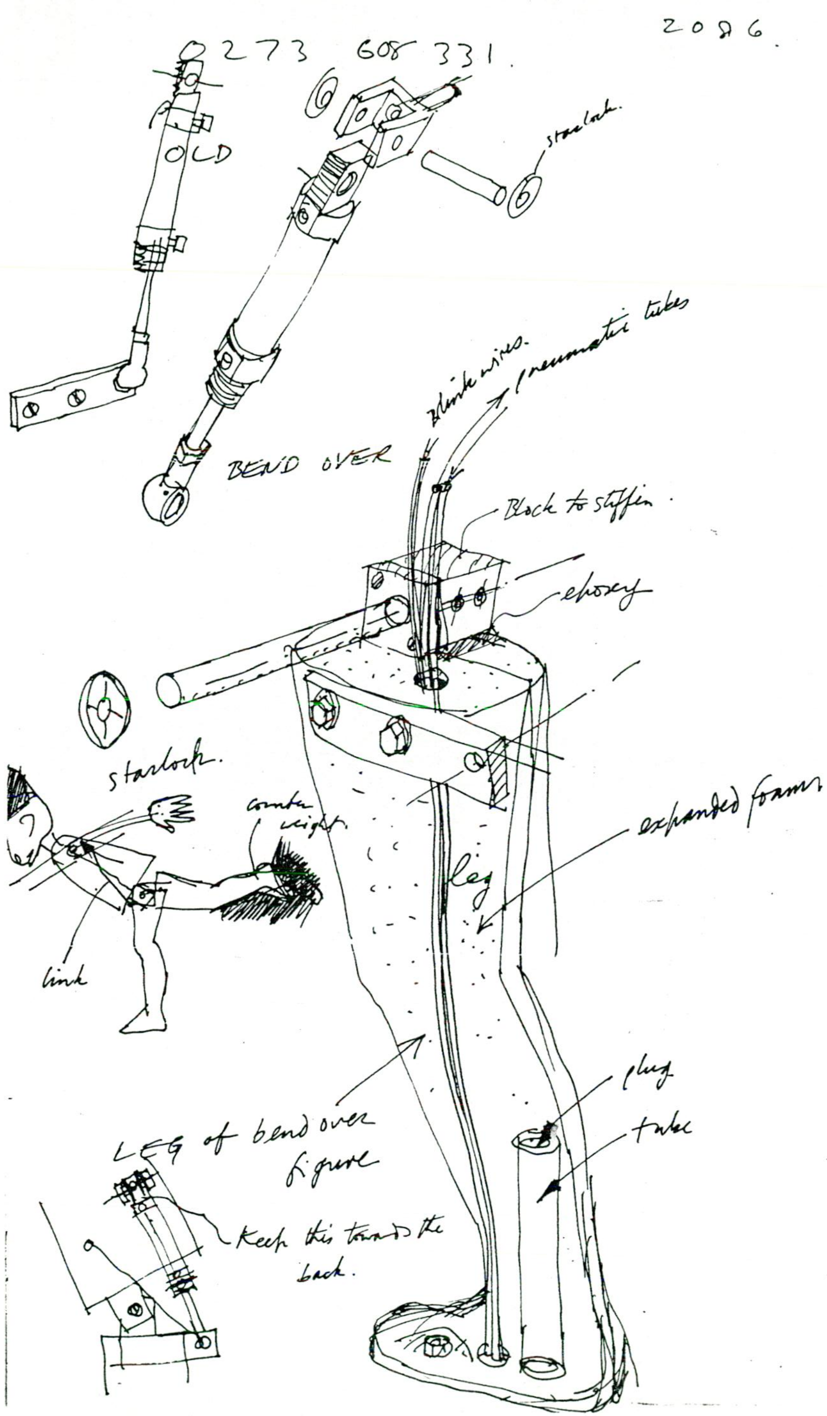
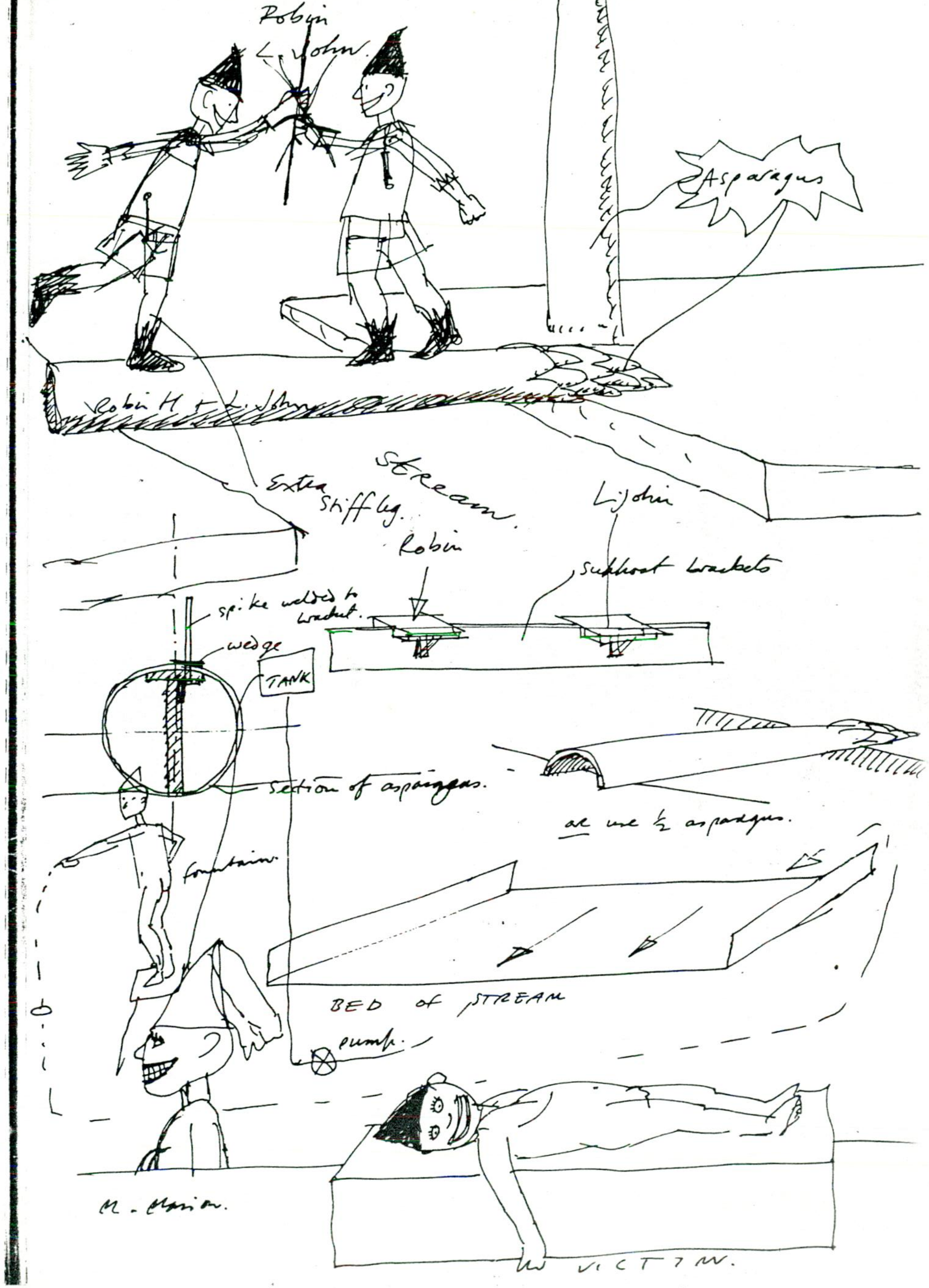
[5] Paul Spooner, letter, Op.cit. p.4.


ROUGH LUCK
WITH THE PRIMITIVE FIGURES
SCRATCH
ITS CHRISTMAS AND MR & MRS PRIMITIVE FIGURE ARE STILL BOTHERED ABOUT THE ORIGINS of ART.....
WHACKETY WHACK
MRS PRIMITIVE FIGURE HOLDS THE VIEW THAT IT IS THE INNATE PLAYFULNESS FOUND IN HUMANS & MANY OTHER ANIMALS THAT IS RESPONSIBLE FOR THE ACTIVITIES AND ARTIFACTS WE NOW CALL ART.
CHOP
CHIPPY CHIP CHI
MR PRIMITIVE FIGURE CANT GET THE THOUGHT THAT ART IS A PSYCHIC FUNCTION AND A NECESSARY PART OF THE HUMAN CONDITION OUT OF HIS HEAD
SPLOT
THEN AGAIN, MANY THINKERS MAKE THE CONNECTION BETWEEN THE HUMAN URGE TO DECORATE AND THE 'DECORATIVENESS' OF THE NATURAL WORLD
KNOCK
KNOCK
MORE CONTENTIOUSLY, SOME SCHOLARS CLAIM THAT EVEN THE CRUDEST ARTIFACTS HAVE THEIR ORIGINS IN AN ATTEMPT TO IMITATE NATURE
I DON'T SEE HOW EARLY PEOPLES HAD ANY SPARE TIME IN WHICH TO DEVELOP HOBBIES SO I CONCLUDE THAT ART IS A RECENT INVENTION
OASIS
WE'VE GOT LOTS OF ART ALL OVER THE PLACE NOW AND A BRAND NEW WAY TO PAY FOR IT
'ANG ON A BIT, MOTHER- I THINK WE'RE ONTO SOMETHING 'ERE
LOTTERY
SORRY IT'S LATE 19/12
O POVERTY WHICH NO RICHES CAN EQUAL!



2x HOOVERS — as bendover but no … in body.
6x BENDOVERS — 4 morris men



Chapter 7.

Materials and Mechanisms.

The materials and mechanisms used in automata have varied throughout history. In ancient and medieval times wood was mainly used, which accounts for the fact that very few of them still exist. Frankenstein was made of human flesh and in the 18th and 19th centuries porcelain, plaster and fabric were used for the figures and metal was used for the workings. Precious metals like gold have been used in the past for Hephaestos's maidservants and for the throne of the Byzantine Emperor, Theophilus, mentioned in chapter two. Gold was also used in 18th and 19th century automated watches.

Wood is still used today for automated figures and mechanisms, as are certain metals. Paul Spooner uses "mostly scrounged objects"[1] and claims to "have been eating through the same mahonany table top for years now".[2] Plastic, rubber and perspex are popular these days for mechanisms as they help to

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[1] Paul Spooner, Letter, Op.cit. p.1.

[2] Paul Spooner, Letter, Op,cit. p.1.

combat friction. Painted wood and metal are employed for the figures of the people and animals, rather than the traditional fabric and fur.

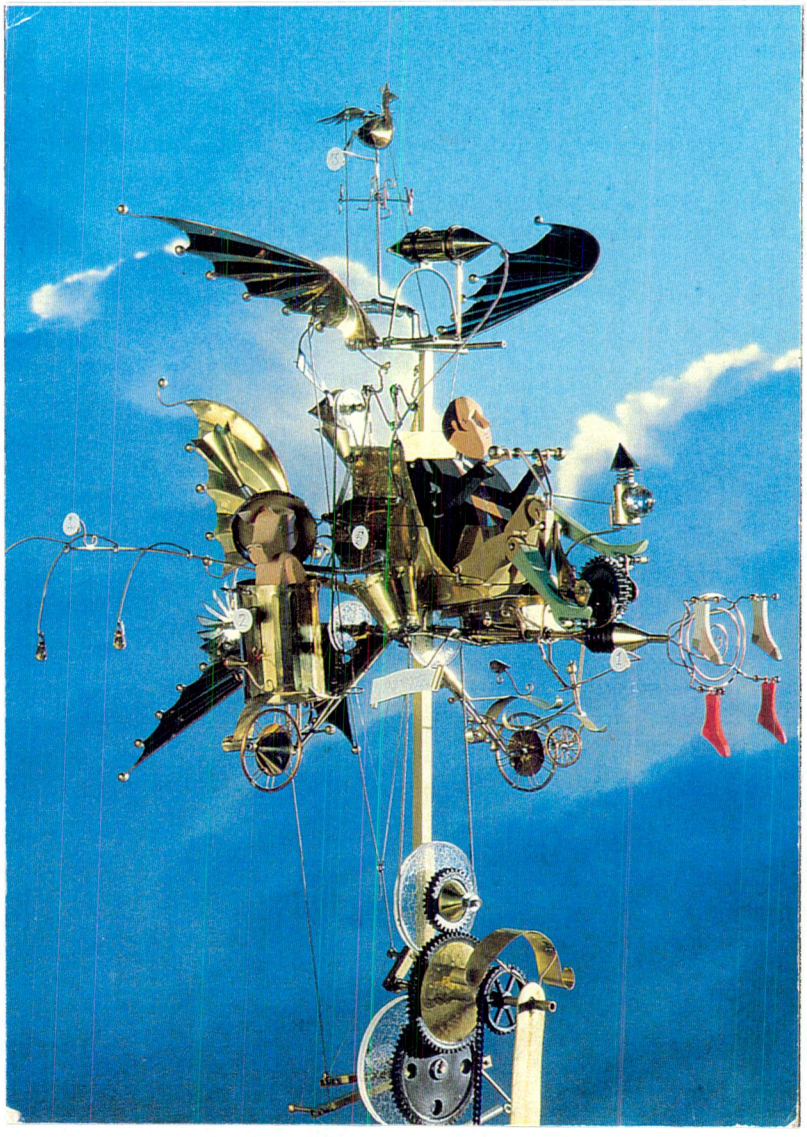

Fig. 7.1, Junkas Giles Agriplane.

Keith Newstead of the Cabaret Mechanical Theatre uses

and interesting mixture of materials. His **Junkas Giles Agriplane** (*fig.7.1*) consists of a painted wooden man, driving an elaborate flying machine. The Agriplane is made of patinated and painted metal, plastic, perspex, glass and paper, an unusual combination of materials which work very well together and bring Newsteads work to life.

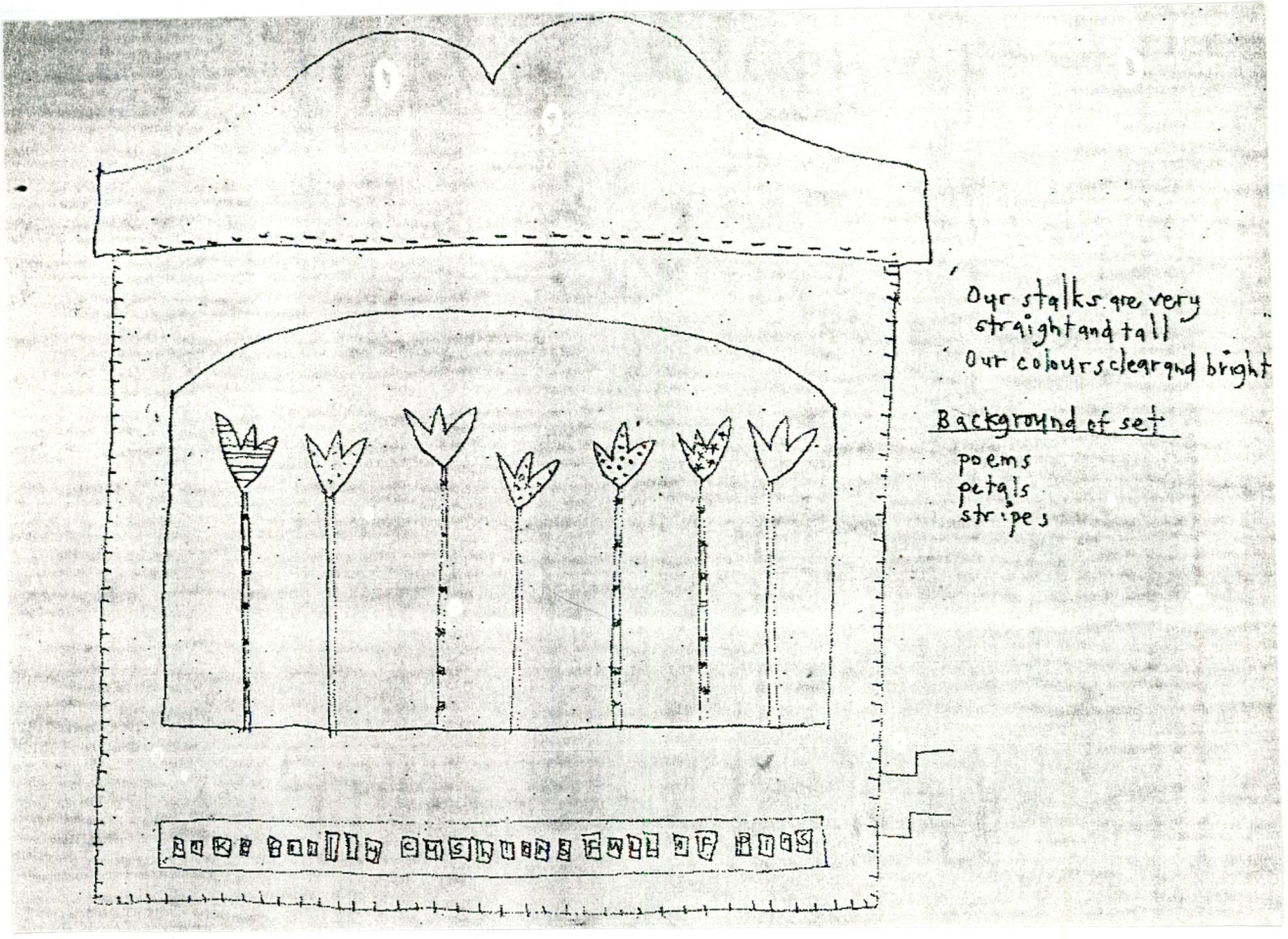

Fig. 7.2. Flower Brooch.

Another artist whose use of materials is very interesting

for me is that of the irish jeweller/automatist, Grainne Morton, who makes tiny automated jewellery.(*fig.7.2*) The patinated copper jewellery generally consists of an irregular shaped box with a perspex door and little flowers which bob up and down on top. There is often a poem about flowers included which is revealed line by line when the handle is turned.

Mechanisms have gone through various advances and declines over the centuries. The Byzantines and Greeks were skilled automatists as were the Egyptians. Hero Of Alexandria made many advances in mechanisms during the first century A.D. but they went into a steady decline until the 16th century, with few skilled makers in between.

When the writings of Hero of Alexandria were found and translated in the 16th century, there was a renewed interest in the subject. Huge developments were made as automated jacquemarts began to adorn the clock-towers of Europe. It was in the 18th and 19th centuries, however, that the manufacture of automata reached its zenith.

With many skilled automatists in Europe, particularly in France, Switzerland and Germany, mechanisms became more and more intricate.(*fig.7.3*) These master craftsmen could make androids which could draw, write, walk and do many human activities very convincingly. The automatists of this time experimented with hundreds of different mechanisms and movements and their main aim was to make their models move as smoothly and realistically as possible. They would often spend years making one piece if it was very complicated and often had to charge vast amounts of money for their work.

In the 20th century, with the decline of the traditional android, many of the skills died with their makers. Contemporary automatists in Britain do not have the complicated skills of their predecessors. Fortunately, complex movements are not a foremost concern today, Humour, story telling and a desire to portray the human character are now their prime concerns. Movement is important but as thay are not attempting to convince people of their reality, smooth and realistic movement is not a necessity.

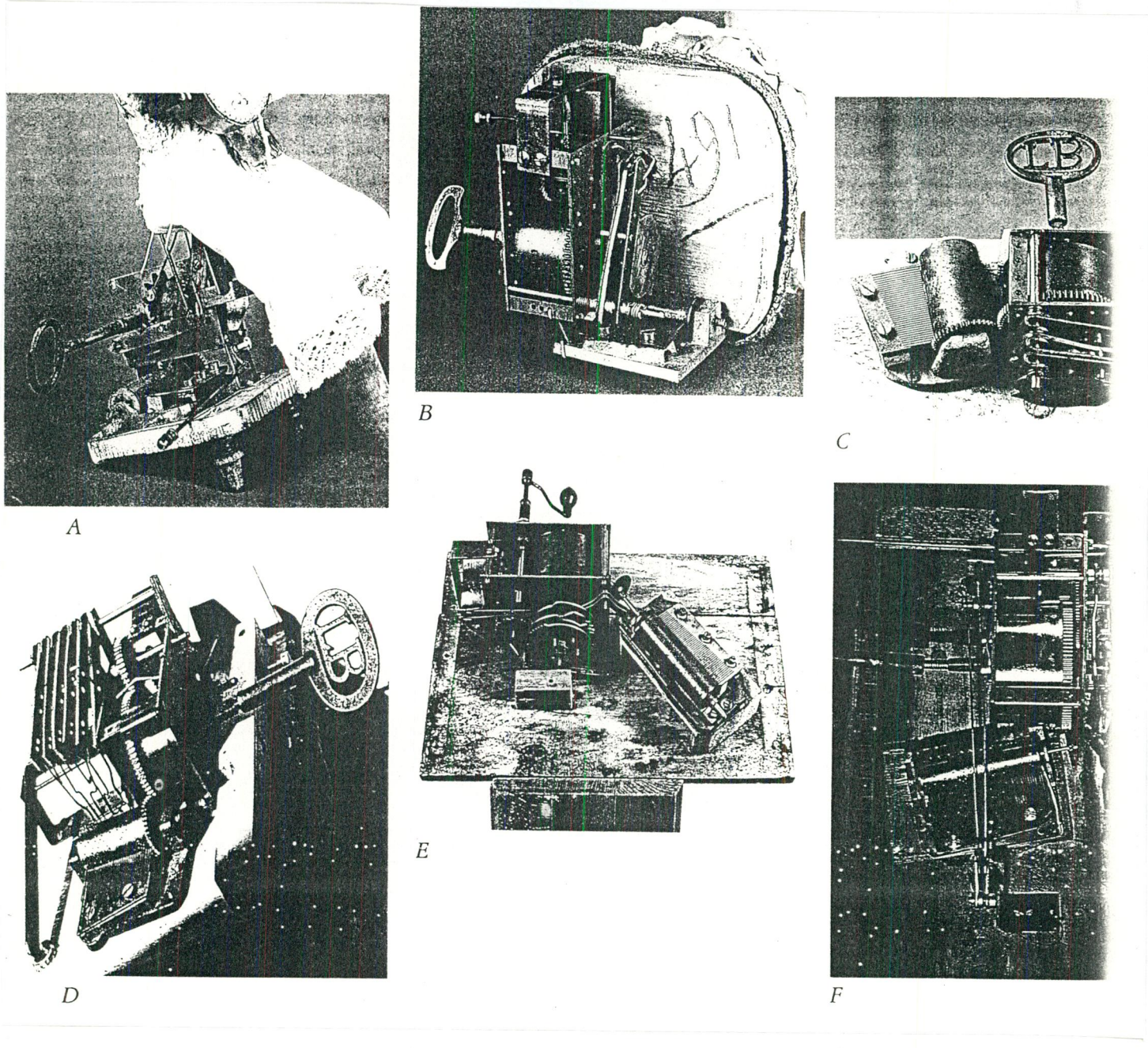

Fig. 7.3. Some 19th Century Android Mechanisms.

Peter Markey admits that he is a terrible craftsman:

> *I can't draw very well or measure accurately, so all my machines have to have a large tolerance of error. Also I'm very lazy, if I come accross a problem I don't try to solve it, I avoid it; so I've never learned anything and my work has never improved... I try to get things smooth but I can't; if I use varnish, for example, I always get wool from my jumper stuck on it.*[3]

Paul Spooner cites a frog made by Peter Markey, which is made out of a cube of wood with two eyeball on sticks that go up and down, as "The best in modern automatry". "That", he says, "is what it's all about".[4] Spooner himself just uses a few simple mechanisms over and over, which he adapts for various purposes.

Lucy Casson's automata are probably the roughest of all rough contemporary work. She uses old tins which are bashed into shape and painted. Her mechanisms are loud and the movements are choppy and irregular. (*fig.7.4*-7.5) It is a far cry from the delicate and smooth androids of the previous centuries, but they do, nevertheless, possess an irresistable

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[3] Rosemary Hill, Making Waves, Crafts, p.32.

[4] Rosemary Hill, Making Waves, Op.cit. p.32.

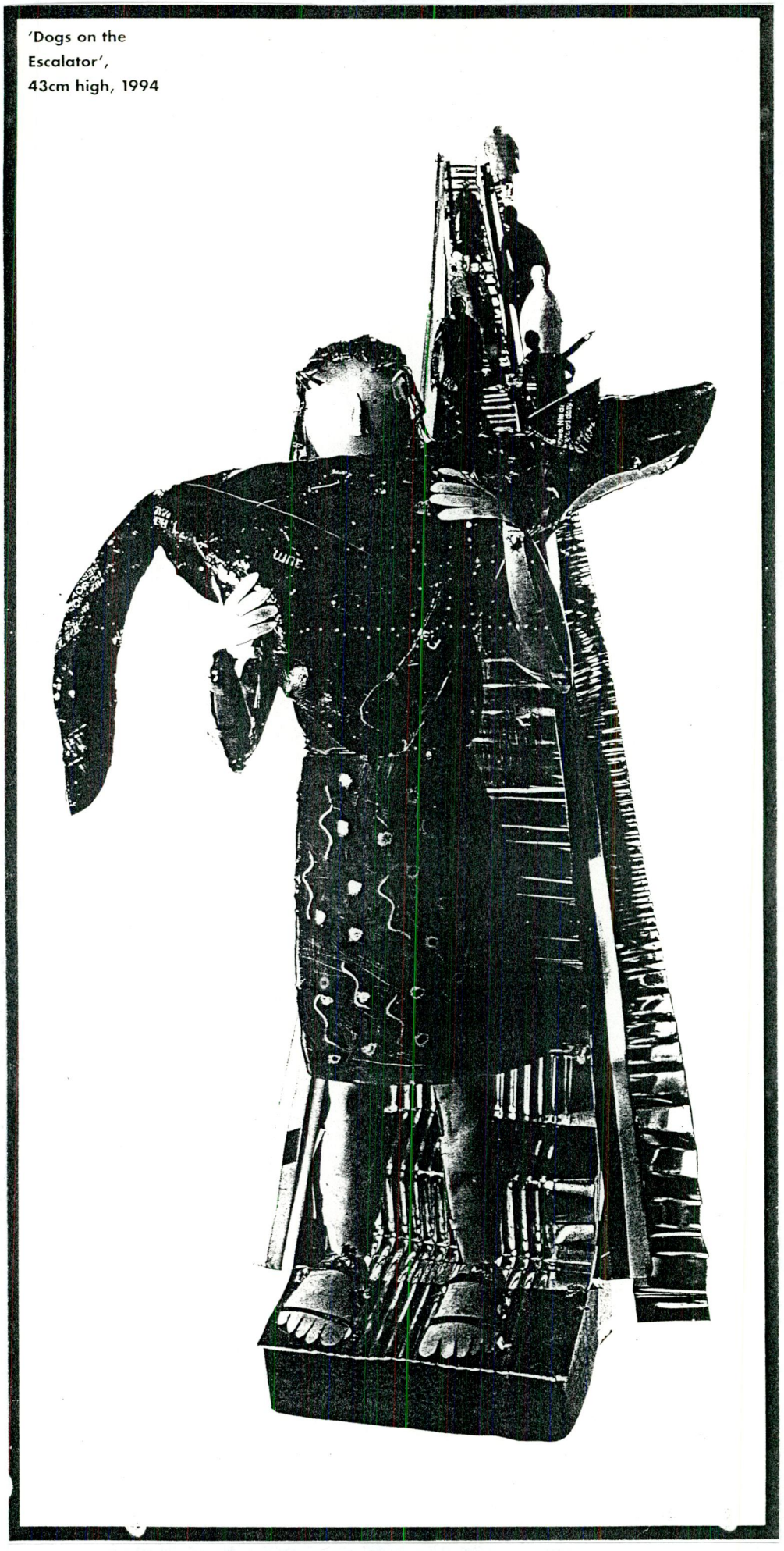

Fig. 7.4. Dogs on the Escalator.

charm, and tie in accurately with the ideal of contemporary automata.

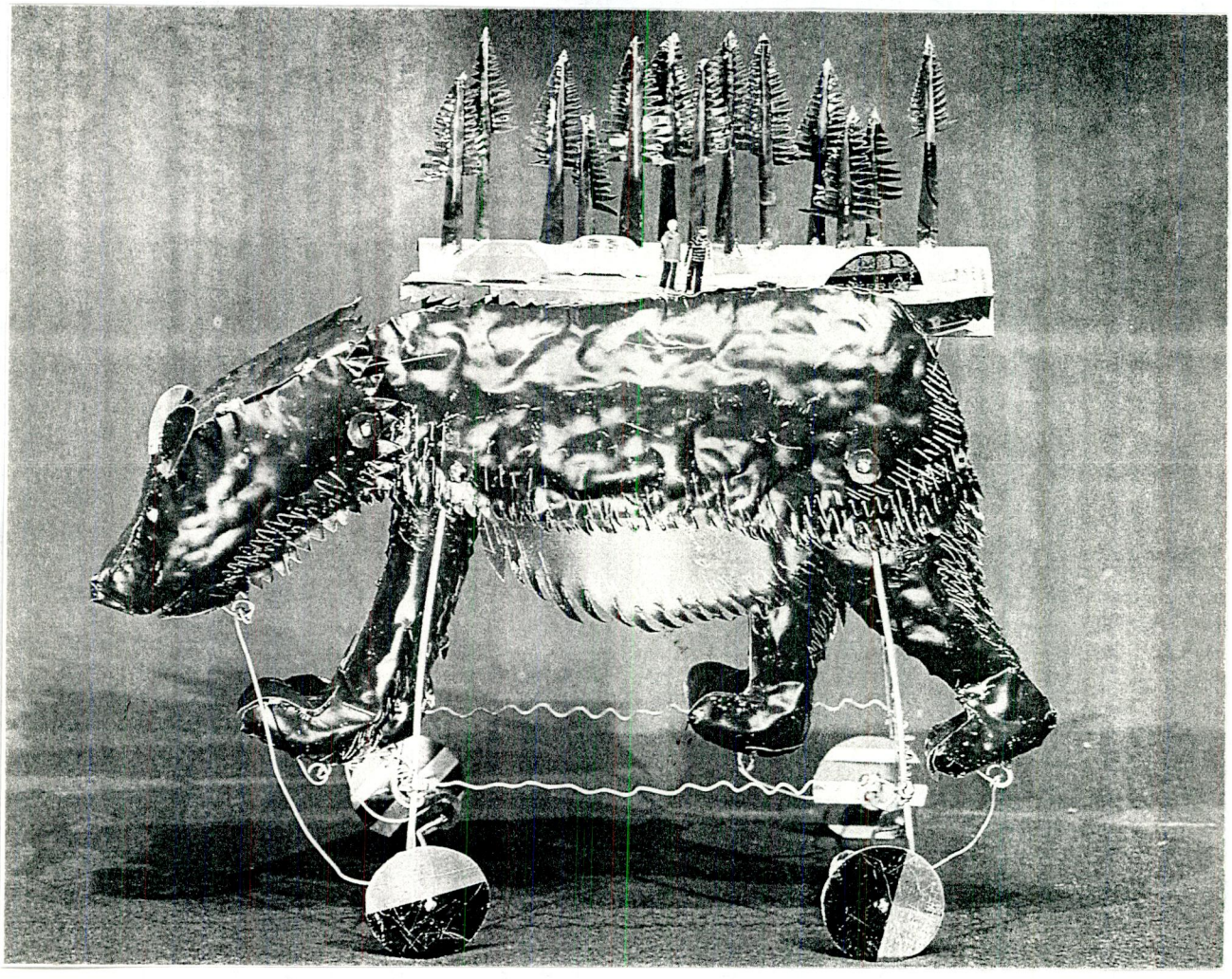

Fig. 7.5. Bear.

The mechanisms and materials used in automata today make this work quicker and cheaper to produce. Because of this contemporary automata are relatively cheap and so can be afforded by the ordinary people that it is intented for. Automata

can no longer be exclusively owned by the wealthy and the royalty; it is now a wonderful form of art which can be enjoyed by everyone.

Conclusion.

Automata holds a rather obscure place in the contemporary world of art. It is neither sculpture nor, as many people call it, 'toymaking'. Peter Markey says that his work is not good enough to be called a toy because "you can't improvise with them, they are what they are. You have to be really good to make a toy better than just a piece of wood - that can be anything." [1] Automata is no longer considered a science as it was in the middle ages and the makers of today are certainly not in the same league as the master craftsmen of the 18th and 19th century android makers.

With all of the advances in technology in this century and intricate mechanisms now being a large part of everyday life, the workings used in modern automatry seem comparatively primitive, even compared to the workings of automata from the previous centuries, and yet today's public are still fascinated by contemporary automata. Thousands of

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[1] Rosemary Hill, Making Waves, Op.cit. p.32.

people every year throng to see the 'Cabaret Mechanical Theatre' in London and many of the artists remark about the fact that people are most fascinated by the mechanisms which bring the figures to life. They want to try and figure out how these relatively simple mechanisms work. There are so many mechanical devices surrounding our everyday life today that we take them all for granted, In most cases we don't see how the machines we use work as the mechanisms of the machines are covered by the design of the object. We are so used to just turning a switch and having things work that we rarely stop to consider what it is that makes them work. I think that what fascinates the audience of contemporary automata is that, for perhaps the first time, the mechanisms are clearly visible and they realise that the machines are not just working spontaneously, but that there is indeed an apparatus there to bring the pieces to life.

Mechanisms are not the only facet which makes contemporary automata so appealing. There is also the aspect of humour. Irony and satire play a large part in modern

automatry. While it is far less elaborate technically, it certainly more intellectually so than its predecessors. But I think that the most appealing thing about contemporary automata is the fact that the viewer gets to play an important part in the articulation of the piece.

Automatists are no longer attempting to recreate life in inanimate matter or even trying to make their work look realistic. They are, for the most part, attempting to imitate a persons emotions and human nature in a humorous way through their machines. The viewer may see his own experiences or feelings in these works or may simply use them as a way of letting off steam.

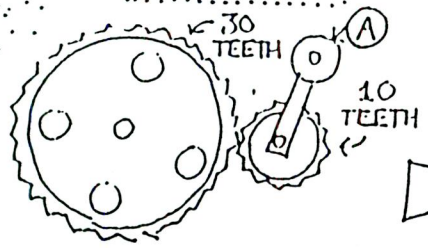
In a paper which was sent to me by the 'Cabaret Mechanical Theatre' on designing automata there is a section on making a mechanical man which kicks a cat. It is meant as a simple example of how springs can be used in automata but it also shows, in my opinion, how automata can be used as a stress reliever. Rather than going and kicking your real cat when you are feeling stressed, one can simply turn the handle

of the automaton causing an imitation cat to be kicked and the action can repeated over and over without actually hurting anything but a machine. It is, in many ways, like voodoo, but slightly less sinister.

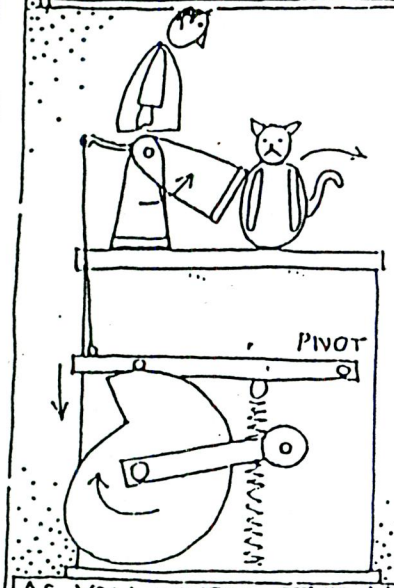
Automata are a craft as they are functional but while they use relatively skilled workmanship, they can admit, like Peter Markey to being terrible Craftsmen and be considered humorous in doing so, and so their place, even in modern craft, is quite obscure. They are not merely useful objects, but have an important intellectual side also. They bring out a persons curiosity and humour and really the place of automata in modern society is out on its own.

MAKING AUTOMATA WORK

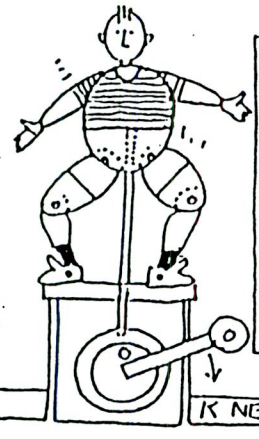
COGS



YOU WILL HAVE TO TURN HANDLE (A) 3 TIMES TO MAKE THE LARGE COG GO ROUND ONCE.



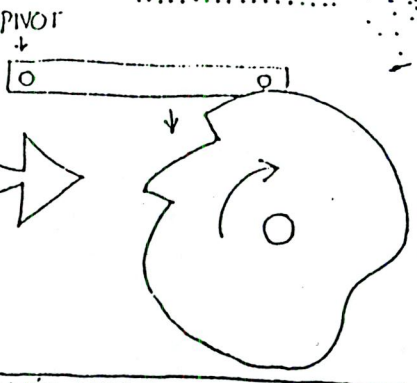
AS YOU TURN THE HANDLE THE MAN WILL KICK THE CAT



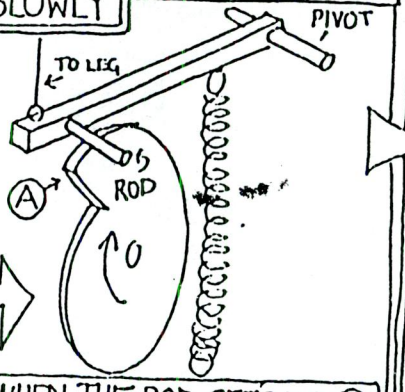
THIS DANCER WILL MOVE UP AND DOWN AND FROM SIDE TO SIDE WHEN THE HANDLE IS TURNED

K NEWSTEAD 92

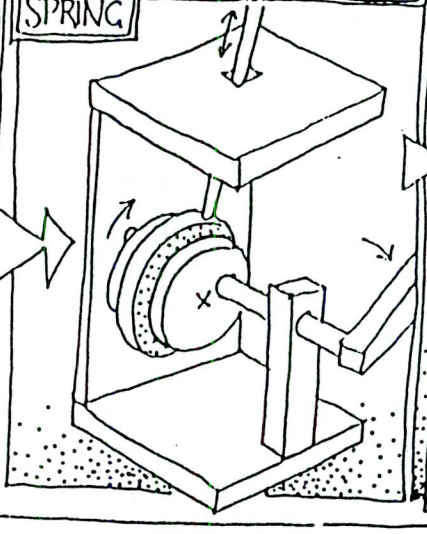
CAMS



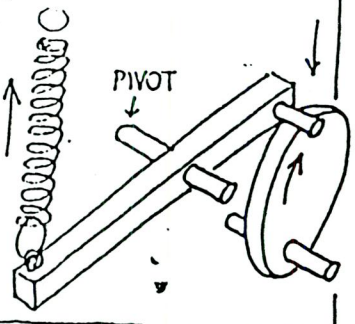
CAMS ARE A WAY OF STORING INFORMATION. AS THIS CAM TURNS IT WILL MAKE THE LEVER JUMP DOWN TWICE QUICKLY AND ONCE SLOWLY



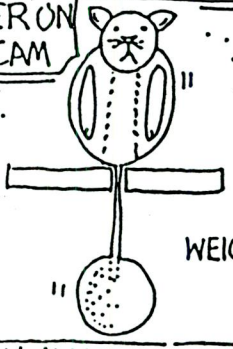
WHEN THE ROD GETS TO (A) IT IS PULLED DOWN BY THE SPRING



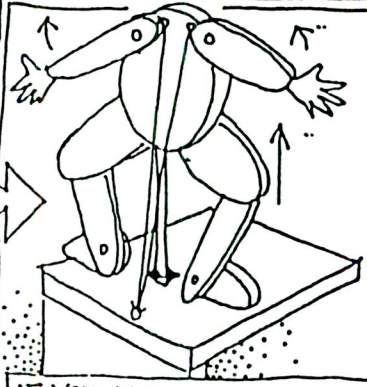
SPRINGS



SPRINGS ARE USED A LOT IN AUTOMATA. THIS ONE KEEPS THE LEVER ON THE CAM



YOU CAN MAKE THE CAT ROCK WHEN IT IS KICKED BY ADDING A WEIGHT



IF YOU ADD STRINGS AS SHOWN HIS ARMS WILL RAISE AND LOWER AS HE GOES UP AND DOWN

FIG. 8.1.

List of Plates.

Fig. 3.10: *Machine a dessiner*, Jean Tinguely, 1955.

Fig. 4.1: *Nunc*, Sam Smith, 1979.

Fig. 4.2: *Unaware, New York 18 May '22*, Sam Smith, 1979.

Fig. 4.3: *Lieutenant Governer in Retirement*, Sam Smith, 1979.

Fig. 4.4: *After the Intermission*, Sam Smith, 1976.

Fig. 4.5: *Joness of Pill Honeymoon Boat*, Sam Smith, 1972.

Fig. 4.6: Leaflet for exhibition, *Automata*, John Hansard Gallery, London, 28th April-30th May 1992.

Fig. 5.1: *Runners*, Peter Markey, c. 1970.

Fig. 5.2: *Wooden Jungle*, Peter Markey, c.1970.

Fig. 5.3: *Wave Machine*, Illustration, Peter Markey, 1994.

Fig. 5.4: *The Last Judgement*, Paul Spooner, c.1980.

Fig. 5.5: **The Doctor*, Tim Hunkin.

Fig. 5.6: Postcard cutout from the Cabaret Mechanical Theatre.

Fig. 5.7: **Crankenstein*, Tim Hunkin.

Fig. 5.8: * *The Ticket Collector*, Tim Hunkin.

Fig. 5.9: Ticket from The Cabaret Mechanical Theatre.

Fig. 6.10: *Anubis in Montmartre, Paul Spooner, 1981.*

Fig. 6.11: *Flight into Egypt, Paul Spooner.*

Fig. 6.12: *Rough Luck, Illustration by Paul Spooner, 1994.*

Fig. 6.13: *Illustration by Paul Spooner, 1994.*

Fig. 7.1: **Junkas Giles Agriplane, Keith Newstead.*

Fig. 7.2: *Flower Brooch, Grainne Morton, 1994.*

Fig. 7.3: *19th Century Mechanisms: A- Guitarist,(Vichy), B- Little girl with basket,(Lambert), C- Conjuror with cup, (Lambert), D- Little girl with mirror,(Lambert), E- Pierrot and the monkey, (Vichy/Triboulet), F- Conjuror with two cups, (Lambert).*

Fig. 7.4: *Dogs on the Escalator, Lucy Casson, 1994.*

Fig. 7.5: *Bear, Lucy Casson, 1994.*

Fig. 8.1: *Making Automata Work, Keith Newstead, 1992.*

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Primary Sources include letters from the following: Paul Spooner, Nic Gray, Matt Smith, Tim and Vicki Wood, John Maltby, Pippa Greenwood and the Cabaret Mechanical Theatre.

* These articles have been obtained from Paul Spooner and the Cabaret Mechanical Theatre. Original sources were not available.