

matter of fact the moving picture manufacturer is the biggest and most undiluting taker extant. There are no limits to the tricks and devices that he presses into service. In this field of activity he is more fertile than the most expert illusionist and conjurer.

For instance, you are following the rejuvenating effects of a mysterious potion. It is in the hands, say, of a witch, and you see the transformation take place before your eyes. How is it done? is a common question. The answer is very simple. You see an individual bent double with age. For this purpose the actor is made up. He meets the witch who instantly performs some weird actions, at the same time blessing the subject with sprinkling of her famous youth restorer. At that point the camera stops working. While out of action the actor without moving his position discards his garments and appearance of age and beneath he is attired in garments characteristic of youth. When the camera starts working once more you see the decrepit individual erect himself in the new garments and strut along like a youngster in his teens. It is the same all through. Just at the moment that the change is to take place under the action of the mystic medium the camera stops working and the requisite change is effected.

The trick film is really one of the most popular forms of amusing pictures in vogue today, and it was brought into use at first through the enterprise of a French "magician," who pressed into his services the ordinary devices associated with his art. From that it was but a short step to faking. In this work superprinting two or three films is a common artifice, as well as double exposures upon the same film. In this way we see visions such as the miner in the Yukon dreaming of his home and mother in the North of England.

The majority of these tricks are absurdly simple, but as their lucid explanation is impossible without the aid of diagrams it is impossible to dip into those of an apparently intricate character. It will suffice to say that sensational scenes such as a leap over a cliff, an execution, and such like are produced by resort to a lay figure. At the critical moment in the incident when the sensation is to occur, the camera is stopped, and the real actor slips out of the scene, and a dummy is substituted. The stoppage is only momentary and none of the characters change their relative positions, becoming rooted to the spot like statues at the instant the manager gives the signal to introduce the dummy which is held in reserve near by.

When the cinematograph first entered the amusement world the scenes depicted were of a commonplace character such as an ordinary street scene or event in

everyday domestic life. But enterprise struck out daringly. Thrilling dramas and absurd comedies were written, and these proved immensely popular. Then the manufacturers became more ambitious. They prepared pantomime productions of popular romantic stories. In this way you can become acquainted with the story and adventures of "Monte Christo," being carried pictorially through the volume within thirty min-

ute manufacturer has the knack of knowing just how to rivet the interest of the public. In the days of the magic lantern by the attachment of the microscope cheese mites were shown upon the screen. The cinematographer goes further than that. He shows you the chameleon stalking its prey, the interior of an ant's nest, and the physical force possessed of the house fly. Recently this movement has made a

the mysteries and fascinating lives of the most minute living things in a pond and follow in detail the habits and peculiar movements of varying members of the brute creation.

It has also brought life in the most inaccessible corners of the world before the millions in teeming cities, and is widening our knowledge of the world very materially. A quarter of a century ago an expedition to a remote



HOW THE DOMESTIC DRAMAS ARE ENACTED.

The actors who work on this stage have a small but important audience of camera men and electricians.

utes or less. "Alice in Wonderland," "David Copperfield," "Oliver Twist," and the fairy stories of "Aladdin," "Cinderella," and so on, have been produced in this way. The picture manufacturer is ready to produce anything that the public may desire, from the Creation to the Burning of Rome, from prehistoric times when dinosaurs roamed the earth to the execution of Charles the First; from the Deluge to the early days of Christianity. No matter what particular phase is desired, be it historical or religious, the frankly impossible, or the severely commonplace, all can be produced. It is merely a question of public fancy and expense.

From being a mere form of amusement, the cinematograph has now passed into an educational force. Science, no matter what its branch may be, is being illustrated more and more every day, and it is encouraging to note its meeting with increasing popularity, for the pic-

ture manufacturer has the knack of knowing just how to rivet the interest of the public. In the days of the magic lantern by the attachment of the microscope cheese mites were shown upon the screen. The cinematographer goes further than that. He shows you the chameleon stalking its prey, the interior of an ant's nest, and the physical force possessed of the house fly. Recently this movement has made a

distinct advance. In the laboratories of one of the Parisian manufacturers, the writer witnessed the testing of a film depicting the main blood stream of a live frog. It had been a tremendous task to secure such a photographic record, inasmuch as the magnification ran up to 75,000 diameters. It was somewhat remarkable to see the corpuscles of the blood reproduced inches across, and to follow the attacks thereon by the infinitesimal germs, looking in the picture like tadpoles.

More wonderful things have since been attained. A German scientist by means of elaborate and costly apparatus has secured the flight of a bullet from the moment it leaves the muzzle of the rifle until it strikes the target. In this instance owing to the high velocity, the necessity for very rapid photography and brilliant illumination, the electric spark was pressed into service. We can also be introduced upon the screen to

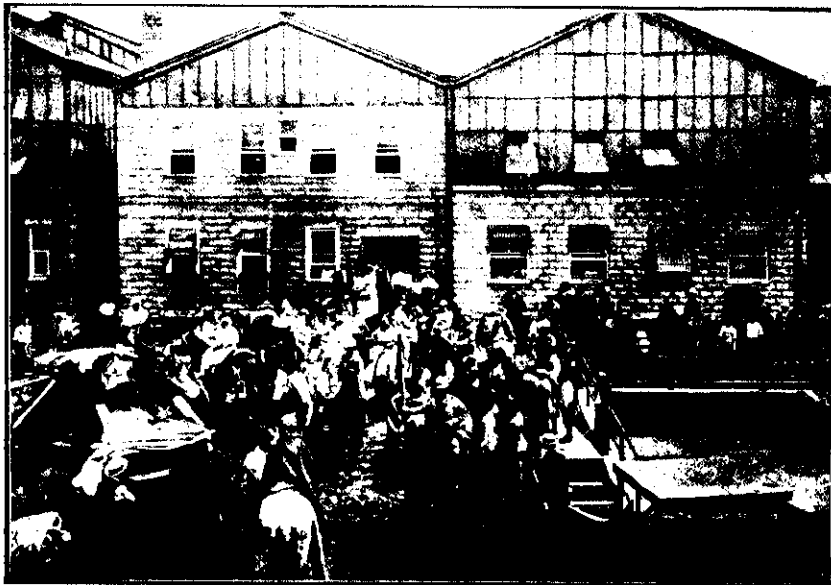
corner of the earth was always accompanied by an artist, or included a member of artistic bent; ten years later the camera was considered indispensable; but to-day it is the moving picture camera which constitutes one of the most important features of such equipments.

In this way Shackleton brought the South Polar regions with its life and dreariness before the people living in proximity to the Equator; the Duke of Abruzzi harnessed the peaks of the Himalayas and displayed their majestic grandeur before those to whom the name of mountains were scarcely known. We secured an animated picture of Mr. Roosevelt's tramp through Africa, and we were brought face to face with the pitiless jungle and all that lurks therein.

To-day one can tour the world for a few shillings, and do so without the slightest effort. The camera hitched to the front of a locomotive, will whirl you through the snow caps of the Rockies or the Andes; will give you an idea of what the earth looks like to an aviator; will carry you round the Bay of Sydney; will show you the very primitive manner in which the natives of the Solomon Islands fish; will bring the roaring waters of Niagara or Victoria Falls within a few feet, and all with every phase and detail of movement faithfully recorded.

It has also given birth to another calling the writing of pantomime dramas and comedies essentially for cinematograph production. The moving picture play is the condensed version of its counterpart in the legitimate theatre. It must be short, action must be continuous, and it must possess extreme holding power. In the early days the producer was content with indifferent work in this field so long as it was dramatic, but now the audience has become more critical, and demands a pictorial play with as much virility and grip as that given on the boards.

Many manufacturers now invite plots and synopses, as the demand for something novel and ingenious is very keen. The Edison Company has a special department for dealing with these contributions, which peruses sometimes as many as 150 a week. The successful contributor receives anything from £5 to £15 for a scenario. This affords magnificent scope to him who is fertile in evolving plots. That it is not a despised opening for ingenuity is evidenced from the fact that in France some of the leading younger dramatists before the public to-day Alfred Capus, Edmond Rostand, Paul Hervieu, to mention



THE ARMY OF "BRITISH SOLDIERS AND ARAB HORSEMEN."

Leaving the film works for the field of battle accompanied by a strong battery of cameras.