## MEDICAL MYSTERY by mona gardner

With new and radical techniques, medicine is probing deep into the secrets of the most baffling and complex of all mechanisms—the human brain

THE nurses called Carrie the meanest patient in the hospital, an unholy distinction in a place of four hundred mentally sick and disabled and frenzied beings. But Carrie earned her reputation. She would kick and shout and spit at everyone who came near, smear food on the walls and strip her clothes off in public rooms. At meals, it took three attendants to feed her, and when she got a fork or a knife away from them it took four and even five strong-armed nurses to hold her down while antiseptics were put on the gashes she had made in her own body. Doctors and nurses and relatives shook their heads over the case—for she

Doctors and nurses and relatives shook their heads over the case—for she was pretty, almost noble-looking when her face was in repose, and her 32-yearold body was healthy. Yet this was the sixth time she'd been in the hospital in eight years, and neither psychiatry nor twenty metrazol shock treatments had helped her.

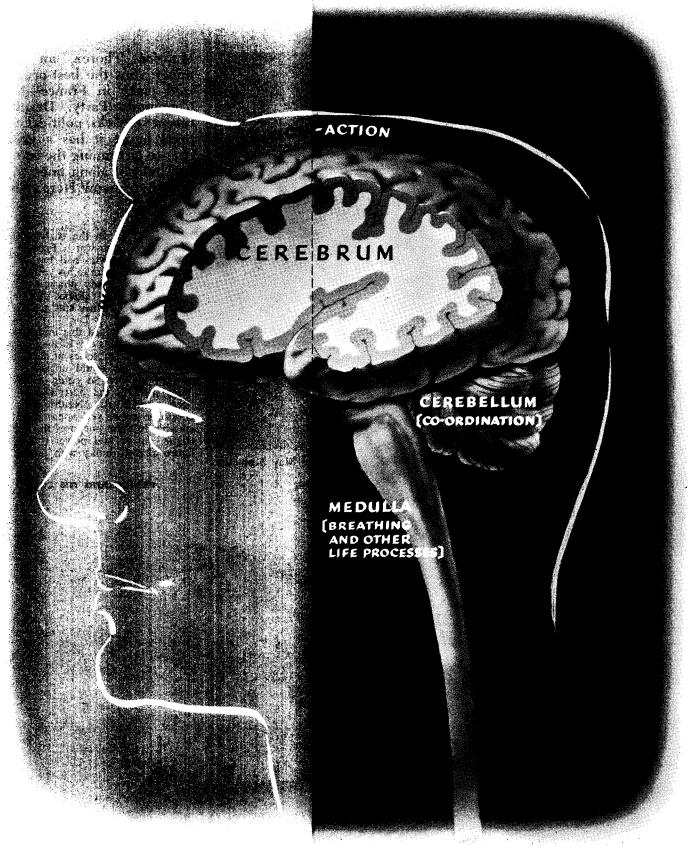
At this point lobotomy—the newest, most drastic and controversial technique in brain surgery—was tried. Holes were drilled in Carrie's skull above each temple, and an incredibly thin knife inserted to make a fanlike cut down through multiple brain fibers and nerve channels. Thus the prefrontal lobes of Carrie's brain—the part that holds the mechanism for worry, imagination, ambition, foresight and self-restraint—were disconnected from the rest of the brain.

Two weeks after the operation Carrie went home. She was drowsy, quiet, full of smiles, with a childlike docility about obeying orders, and a knife was merely a thing for buttering her bread. In another week she was dressing herself and staying dressed—bathing daily, and helping with the housework. Six months later she was working part-time at a switchboard, and in another six months she had a full-time job. She has held this, competently and steadily, for two years. She gets along well with co-workers, is neat and tidy in appearance, and goes dancing once or twice a week.

Lobotomy is a relatively new surgical technique. It was first used in this country in 1936, and from then until 1943 there were only three hundred cases. But in the past two years the total number of lobotomies has jumped to 1500. The Veterans Administration has used the technique for two years. But it has not been done in any Army or Navy

The Veterans Administration has used the technique for two years. But it has not been done in any Army or Navy hospital on casualties of this war, since top Army and Navy medical men believe that war-induced derangements can be cured by psychiatric treatment.

These most radical of brain operations record good and bad results in requires foresight, imagination and selfabout the same ratio as most other major operations-good, 52 per cent; fair, never erratic, but are restless, over-



The basic divisions of the human brain. In lobotomy, a new surgical operation for certain types of violent insanity, the cables connecting midbrain and forebrain are severed. Division is made roughly in the area of the dotted line, and the result is a break in the circuit through which ideas are normally translated into action

32 per cent; poor, 13 per cent; death, 3 per cent. But the good results can be amazingly good. One woman married again, runs a beautiful home and has borne two healthy children; another is teaching mathematics in a university; a lawyer is working for the government after three years in a mental institution; a man is teaching the basic mathematics of radio in the Signal Corps.

## The Fair and the Poor Cases

When results are only fair, patients are likely to be unambitious, unimaginative, shallow, lethargic people who are at the mercy of every passing external stimulus the way a child is. But they are mild, contented, completely without suicidal feelings, and can live at home, although they are not much good at housework, since housekeeping—believe it or not requires foresight, imagination and selfrestraint. The poor-result cases are never erratic but are restless over-

energetic and can't say no to oil-stock salesmen, auctioneers, or to liquor, and usually must be put in institutions.

usually must be put in institutions. Lobotomy does not restore disordered minds. It only trades one psychologic deviation for another—it being a question which the patient's family can best endure. Literally, lobotomy is a surgically induced childhood from which the patient may gradually mature in two or three years, not to a high level, but to one sufficient for a well-ordered life. At this stage even the stanchest believers in lobotomy advocate it only for the last ten per cent of those with crippling neurotic obsessions and then only after psychiatry and shock therapy have failed. But there is no telling where this technique may lead, or the eventual standards in mental health it may set up.

Meanwhile, each case adds to the small total of our knowledge of the critical frontal lobes of the brain which are variously described as "the enemies of mankind" and "man's noblest endowment."

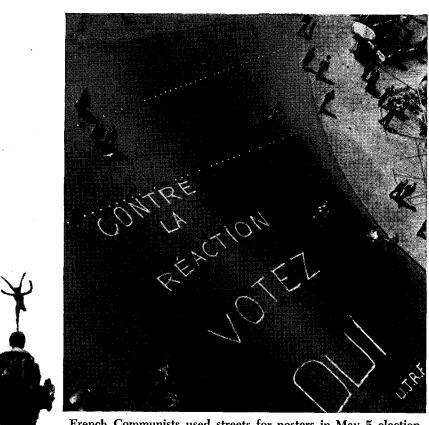
The term brain is specifically applied to all parts of the nervous system inside the skull. Draw a line through the eye socket, and above it you have the area where most of the brain is lodged. Actually we have three brains—the forebrain, midbrain and hindbrain—as a result of our inheritance from our prehistoric past.

When, and if, we think and reason and remember, it is with the big main forebrain, also called the cerebrum (pronounced SARAH-brum). Its size marks the essential difference between our thought apparatus and that of lower animals. The higher the scale of intelligence, the greater the size of the cerebrum. Men, gorillas, orangutans and chimpanzees are the only animals with any considerable forebrain. So far, man is ahead, with a brain about three times larger than that of the apes.

The cerebellum or midbrain is an apparatus which co-ordinates two types of energy, both concerned with locomotion. (Continued on page 44)

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DRAWING BY FRANK NETTER, M.D.



French Communists used streets for posters in May 5 election

Maurice Thorez, an exminer, runs the best-organized party in France-the Communist Party. Despite recent setbacks, political experts figure it has a good chance of running the country, but not along lines laid down by Moscow. Here's why

**COMETIME** in the early or middle years of the war a Frenchman—a politician, who had been a miner and river bargeman in his youth and still possessed the hardy physical attributes of those callings-slipped out of German-pocketed France and made his way to Moscow.

How he achieved this immensely difficult feat remains one of the juiciest and most debated mysteries of a period rich in secrets. He could unriddle it himself, of course. So could a few comrades high in the party's councils, in France and Russia. Neither he nor they choose to do so yet; apparently finding suitable to their purposes the air of intrigue, daring and power it lends to a figure already bulky with omens, good

and bad, with threats and forebodings and hopes, all depending upon the color of the spectacles through which you view him.

For he is Maurice Thorez, the most controversial as well as perhaps strong-est and most determined individual now in French politics. Thorez is head of the French Communist Party, with the ex-pectation of greater office ahead, in the opinion of hundreds of thousands of the *petite* and *haute bourgeoisie* who see again to the locks on their iron shutters before they retire to uneasy slumbers on nights when they hear "Maurice" on the radio or read the goose-pimpling fables about him in conservative papers.

The two national springtime votes, one rejecting the proposed constitution for a Fourth Republic and the other electing a new assembly to have another go at writing it, neither affected Thorez' long-range chances nor soothed the fright of his intelligent enemies. French politics, like so many things French, are unique and full of elusive nuances. Because of this, foreign observers can easily miss the importance of the escape story. But millions of Frenchmen consider the unknown method of its accomplishment a major, if subtle, key to what is going to happen in France's domestic politics and her international relations in the "before the next war" period—as

**BY W. B. COURTNEY** RADIOED FROM PARIS

CAIS

PHOTOGRAPHS FOR COLLIER'S BY DOISNEAU FROM RAPHO-GUILLUMETTE

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