Discovery of True Functions of Socalled "Gria Cells"-Uxpertments Showing That Brain Power Depends on its Activity.

Shall we ever be able to intri on gentuses, according to the needs of society, by scientific methods?

Frof. C. F. Hodge, of Clark university, one of the very aughest autharities on the physiology of the forain, says that he has a range hopes that the proportion of geniuses can be materially increased when, enough has been learned of the conditions involved. No brain of a geniuse has ever been unalyzed by strictly modern neurological mathods.

From high, however, before we are much older, it will be known what sort of physical and chomical action is taking place in the brain.

Prof. Hodge is of the opinion that the small each was for the giant cells from their conditions involved. No brain of the functioning of thought in the brain while the mind is producing thought, for it has now been established beyond a doubt that for every thought and emetion a corresponding physical and chemical action takes place in the brain, of course, would be as worthless without them as without their big neighbors.

What we already know of the function the stream of the giant cells but the brain.

It is true that the channels of norve impulse through the simplest brain have not yet been traced, and the A B C of the human brain has not yet been mastered. Nevertheless chough has been good quired to suche us to grasp the subject of two events—the impairment of the bour our own for two events—the impairment of the British our own for

And it was seen that the circuit was produced by the contact of the dendrons of a neighboring cell.

Why the competion is interrupted by the completed during unconsciousness and why completed during unconsciousness. Asserting as well as interrupted by the convertion is interrupted by the convertion is interrupted by the completed during unconsciousness and why completed during convertions are circuits and cure the image.

and way completed during consciousness, has been parity discovered and parity conjectured. The small rediscionary as all sevels situated along the nerve flares and dendrous were distinctly seen to expand during steep, the rawing out feathery wings which seemed to interpose between the dendrous and nerve flares, breaking the compeniors.

FACTS ABOUT THE BRAIN the most interesting results. It was true along that the bodies of games found that in a state of sloop or ancording our more games of the games of the form were connected changes. It why no one jet knows. Her according then of them were connected changes it. Why no one yet knows. But a cord taking place in their protoplasm and ing to this intest scient of neurologica neurons were noted which showed that welentists, crime as well as insurity is

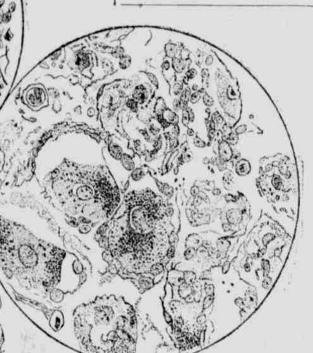
AMERICA'S AUXILLIARY SHIPS.

It Would Require Two Years to Make Them Armed Cruisers.

Emperor William of Germany is under stood to regard the "Kater Wilhelm det Grosse," the great new steamship that has just gone into commission on the trans-Atlantic route with great enthusiasin. This is partly due to the fact that the versel has been named for his grandto Germany that the biggest passenge boat affeat should be built at a German yard and sailed by a German line; bu more than all it is because, in case of th

and then said, "About two years!" THE FAULT IS UNCLE SAME.

This is true of practically all the ves-bers composing our auxiliary fleet, more than a score and a half in number; and the fault lies, not with the merchant and passenger lines to which the steamers selong, but with the government it-cif.



THE BRAIN OF A MAN DYING

DIAGRAMS SHOWING "GIANT CELLS" AND THE SMALL CONNECTING CELLS ON WHICH THE POWER OF THE BRAIN IS SAID BY

DR. HODGE TO DEFEND.

in a flash when once a living human brain can be examined. Only in the very low-est orders of life has it been possible to study the cells in the living brain under the microscope with any degree of satisfaction. A professor of the university of Virginia is reported to have opened the skull of a man under the influence of ether and looked at the brain in action but the cells under such conditions, were so nearly dormant that he learned no more than he might have ascertained from a section of dead brain. When some man is philanthropic enough and has nerve enough to offer his cranium to the knife and saw without taking anaesthet-ica to render him unconscious, the human brain cells may be seen in action that is if such action can be traced with

THE BRAIN of A HEALTHY CHILD

out staining. Since Golgi, the Italian, a few year ago discovered how to stain the brain cells and their connections, it has been learned that all brains are essentially alike in their physical aspect. The dif-ference in mentality is due to difference in the number and size of the cells, their connections, etc. There is doubtless also a chemical difference; for the blood of no two species of animals is exactly the same chemically. But the general appearance of the cells and their connections have so many points of resemblance that much may be learned of the highly organized brain of man by studying the brain of a little transparent crustacean belonging to the crab family.

Golg.'s method of staining has enabled the observers to trace the cells and their connections in all their complications. All the large cells of the brain called neurons, are connected with one another nerve fibres and dendrons, as they are called. The nerve fibres are more or less stringy looking, resembling the roots of a radish. At the other end of the big of a radish. At the other end of the big also explain why there is so surprising a cell are the dendrons, which look a little mental difference between men possessing like the tops of the radish. Throughout the brain a large number of small cells of gray cells, etc. The brains of men of may be seen connecting the nerve fibres genius are no larger, as a rule, than the meeting the nerve fibres and dendrons. These cells show a great

variety of form.

Throughout these complicated chains of the nerve impulses are constantly passing of finer structure; the substance of the the nerve impulses are constantly passing and repassing with lightning rapidity. while the brain is active. The neurons, or big cells, especially in the coriex of the brain, are found to be the seats of memory—the storehouses of the brain. Prof. C. F. Hodge has proved this con-Prof. C. F. Hodge has proved this con-clusively by studying the brain of the shore mentioned crustacean. He has also noted the effect of the igue and sleep upon noted the effect of to igue and sleep upon the brain of this little creature. After the crustacean had been kept under the microscope long enough to faligue it, holes began to appear in the protoplesm of the big brain cells, and the nucleus and its core began to shrink. The creature was then allowed to sleep, and the

cells soon resumed their normal shape.
To show that these hig cells are closely connected with each other and yet are independent units, Prof. Hodge subjected the little animal to long and sovere fatigue. The nucleus in some of the big cells shrunk away to thuy particles, and the protoplasm divided. The two illustrations, one representing a healthy child's brain and the other the brain of an old man, dying from old age, make plain these two conditions in the cells. The crustacean was now allowed to rest, rest was no longer able to restore part of its memory. This fact shows why

retain their other faculties.

the more rigid anatomical relations."

What Prof. Hodge has learned about the brain of the crustacean has recently been taken up by such histological masters as Ramon Y. Cajol and Golgi with that of men in regular, lawful pursuits.

The so that it contained state and received proper compensation for the time she was idle.

These facts were kept as quiet as possible at the time, and few persons knew that of men in regular, lawful pursuits.

minds suddenly go blank without any no value whatever to the navy, known cause. There was the remarkable These ships which are without armor case of the Rev. Mr. Holmes, a New and would have to remain thus unpro-

knowledge came back to him. In this tween a hostile said and an Ameri-case, the memory cells had evidently lost can commerce destroyer, the latter would connection on account of the failure of the small cells to do their duty. Why are we unable to remember at times. while at other times our minds are over-whelmed with crowding memories? The would be out of the question to call the inaction or the intense activity of these auxiliaries into service, and it behooves connecting cells explains it.

Uncle Sam to heaten the construction of

brains of men of average ability; the gray cells are little if any greater in cells may be a better electric conductor; but the reason is probably to be found in more perfect connections and a greater number of circults for nerve impulses. The impulse moves faster and is more so many stations on a circuit. Of course the greater the number of giant cells and the more complete the connections, the larger will be the head and the great

Prof. Hodge and his school have completely abandoned Lombroso's anatomical generalizations about stigmata, degenerabrain of many criminals resembles that observed in perfectly honest, upright people. Prof. Hodge declares that the real differences are functional, not structural; and he holds out more hope to the degenerate than Lombroso does. It de-pends much more on what sort of action is taking place in the cells than on the shape of the ears or the conformation of the skull, as to whether a man will commit crime or not. "For example," he remarks, "in th

the extremely shrunken cells to their case of a young man who had committed original shape, and Prof. Hodge perceived suicide Prof. Wilder pores over the brat that the creature had in consequence lost for three months, and claims to find art of its memory. This fact shows why remarkable configuration of the convo physiological conditions of the man be The above is given as an introduction leading to the great problem of brain physiology, which has been partially solved within the last few months, but which must be fully cleaned away before any great advance can be made. The At any rate practically the functional is secret to be revealed is how these giant to a greater extent within our control, cells in the cortex of the human brain and we should exhaust all the possibiliare connected, and how the connection is likes on that side before settling down to

giant memory cells from overwork, loss The fact is that while each of the naviof sleep, disease, etc., or the falure of gation companies in question has done the small cells to perform their function. Its part, Uncle Sam has neglected to proas connective agents. There is a strik-vide the necessary guns, and without ing number of cases of persons whose these the auxiliary vessels would be of

AT 94 YEARS -

England elergyman, who unaccountably tested, would get as commerce destroylost his memory a few months ago, so he
had to relear everything he had ever
boats, and could easily overhaul and deknown. After a few weeks' effort in
learning to read and spell, all his former
learning to read and spell, all his former The function of the small cells may plenty of naval ordnance unless he feels certain that there is no possibility of rupture with a great marine power.

THE AUXILIARY LIST. There are thirty-two vessels which are entered as auxiliary cruisers. Four o gray cells are fittle if any greater in "New York," "Paris," St. Louis," and number, and are much the same in size "St. Paul," If ever pressed into the naval service the "Paris" will carry 12 six-inen rifies, 6 machine guns, and 6 six-pounders; the "New York" will carry 12 six-inch will carry, each, 8 six-inch rifles, 4 ma-chine guiss, and 4 six-pounders. The latest addition to the auxiliary

fice; is the Plant line steamship, "La Grande Duchesse" which was immched last year. She is 404 feet long over all, and she has been built to answer the and the sowing takes place in January, ten or twelve seeds being places in a s.ngovernment requirements as an auxili-

Other vessels in the auxiliary list on the gle hole made with a stick. As soon as Aliantic coast include four belonging to the sprouts appear above the ground Admitte coast include four belonging to the Pacific Mall company, three to the Red D line, and nine to the New York and Cuba mail line. On the Pacific coast there are nine, besides several on the great lakes. Although the guns necessary to render these ships effective are not now ready, they are being manufactured in a leisurly nort of way at the March they are kept well watered, and Washington ordinance shops, As fast as pieces are finished they are stored at the Brooklyn, Boston, Norfolk, San Francisco, and other navy yards, ready to be mounted on the auxiliary vessels at the

IN CASE OF WAR.

It is not at all clear fust what the deemergency. Only once since the close of the civil war has the United States government felt the need of auxiliary ships. That occasion arose in the Harrison adm nistracion while our little quarrel with Chile was on. The secretary of the navy promptly notified a certain navigation company owning auxiliary ships that one of them might be wanted. She was offered at a certain valuation, which was accepted with some modifications. Fortunately the trouble blew over and the from the more elevated plantations of the hip was turned back to her owners, who Ansariehs.

Parisian Freaks in Umbrella Handles----Queer Jeweled Beasts.



ZOOLOGICAL UMBRELLA HANDLES-A NEW PARISIAN FANCY.

auxiliary ships onlickly in case of need, in spite of the fact that the 1100 emission

sallers now allowed by law are insuffi-cient for the ships of the regular navy some of which are going out of comme-sion for that reason. There would be of-ficers enough to commend all the auxllary, as well as the regular ships, those now doing elerical duty in Wast ington and elsewhere were put in active service. And as for neumen and other enlisted men, there are several times 11,500 sallors in the United States who have served three years each in the

navy; and there are also several thousand apprentices, well schooled in seamanship

and gunnery, from whose number, no doubt, there would be volunteers enough to handle the guns on all the auxiliary ships if they were called into service.

JOB FOR A PAINTER Georgie Explains to His Uncle Fred the

Accident That Causes the Demand. (Cleveland Leader.) Dear Uncle Fred: Paw painted part of our stable day Before yistady. He would a painted it all if it Hadent a Bin for a ac-

When He go! About three Boards painted maw come out to see How he was gitten slong and when she looked at Him "I that you was agoin to paint the Sta-Paw was up on a ladder and he stopped

raw was up on a indicer and he stopped and looked at Her like if He diden't no What she ment. Then He says:

"Well, min't I painten it? If you Dont like this Here job, mebby you Better take Hold and finish it yourself."

"Oh, you're doin all rice," says maw, "only it seems to me it would be a little."

'only it seems to me it would be a little

Better if you'd git more paint on the Barn

seen that old gag in The papers twenty

We was all purry scared. Bue it Did nt

"Well, I Hope you're Happy now. You oulden't a stayed in the House Where

you Belenged because they wassn't nobody

s'pose the only thing you're Sorry about is that I diden't Git my neck Broke."

Maw she Diden't say a word. I Gess

FAMOUS LATAKIA TOBACCO.

It is Cultivated by Members of a Sect of

Assassins of Crusading Fame,

This month is the harvest time of the

famous Latakia tobacco. It takes its

Syria occupying the site of the ancient Laodicea, but the port has been blocked

up with sand, so that only small, Lightly laden boats can enter. Behind the town

extends a vast plain to the south be-yond Jibleh as far as the range of bills

ants of the sect of assassians so famous in the times of the Crusades.

raised only when the sun is up. The wa-men and children are employed in keep-

in April the harvest commences, first leaves form what is called the

the fellahs themsives, it being strinan that obtained subsequently.

tobacco, and is smoked with delight by

April to August the plants must be watered according to the state of the

n which live the Ansurich, the d

GEORGIE.

She must a Been purty full of remorst,

They's a Job Here for some pa

Hurt him much, so when we was leaden Him into the House he says to maw:

'Oh nor that long ago," says maw.

"Why not?" paw ast.

and not quite so mutch on yourself. Think that Bame funny, don't you. Why

years ago.

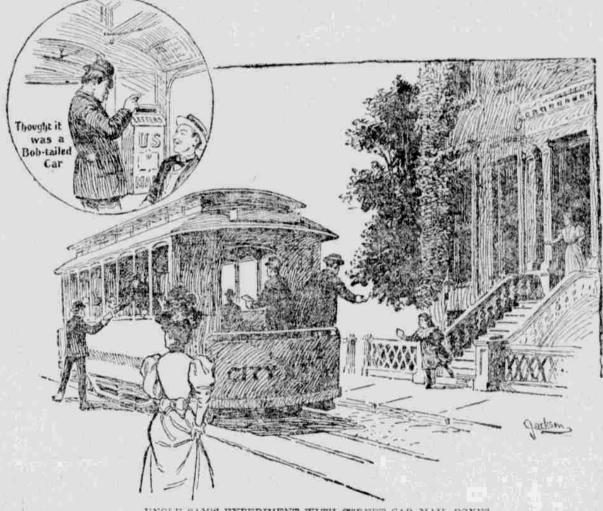
Up Here now?

ZOOLOGICAL UMBRELLA HANDLES—A NEW PARISIAN PANCY.

PARISIAN PANCY

**PARISIAN PANC

the preparation for war. This little ex-perions, of course, did not sattle the question of the government's rights in the crussers, and whether the secretary STREET CAR LETTER BOXES of the navy would negotiate for their purchase or for their rental, or would simply siere them, is a matter to be de-termined when the emergency arises. It would not be difficult to man the



UNCLE SAM'S EXPERIMENT WITH STREET CAR MAIL BOXES.

labor required to transfer a letter from the hands of the writer to the mail bugs "Becos you never rand the Papers then." says maw. "it's only since we Got married and I want to Be Sociable or they's somethin you cusht to Do around the House that you gi so Bixxy reaften papers you Don't Have no Time for anything else." "That's What Thanks a felier gits," proving the postal service is to have let-ter boxes attached to street cars, so that line of travel of the various street cars Paw says, "for tryin to Do things. If you Paw was tickled by that shot and He home, and have the satisfaction in many instances of knowing that they will be

kind of Whirled around on one foot to see How may was ag in to Take it. But the ladder give a slide, and Down she Went with Paw hollerin ter Maw to ketch the Blame Thing. May she list yelled and run away, and paw Come Down kersmash on the Paint Bucket, and upset it, and the sinf run all over His neck and nearly smothered Him Refore He Could git untangled out of the

The letter boxes are to be consplcuously displayed on the cars, so that any forget-ful man who has left home with a butch to mail in the city, will ned a re-

In their coascless efforts to lessen the | down town, After the reminder, instead | is destined to travel for delivery-a letter ear and deposit them in the receptacle The scheme as at present outlined, is

passengers can confide their missives to the confidence of the malicollected on the cars. At these business, on a shopping tour, or returning stations collectors are to be on only. attess of knowing that they will be coted at a point that will bring the cor within a block or two of the place iestimation.

The letter boxes are to be consplauously best of the interpolation in the light of the contents of the mail box. The letters will her list taken to the sub-station, where they will be guickly sorted and transmitted to their destination in the to have letters mailed on the car which cars. face when he steps abourd the car to go | goes in the direction in which the letter !

of having to walk several blocks out of his way to drop the letters in the mailing that travels down town, etc., thus saving box, or at the postoffice, will our be a great deal of time and trouble. By this necessary for him to step to the end of the means, if the new idea is found to work ered at its destination with the everity only obtained in the present state of affairs by affixing a special delivery stamp

The letter boxes used in the experiments can be no mistaking the purpose for which they are intended. Only a person in an advanced stage of intoxication could make the mistake that one man made when these street car letter boxes were usual way. The postal authorities hope that introduced in his town. This man that it will be possible, at any rate with deposited his fare in the letter box, under passengers who are capable of being edu-cated, to follow the workings of a system, ceptacles for cash in use on bob-tailed

LINES TO KATE.

There's something in the name of Kale Which many will condemn. But listen now while I relate The trails of some of them.

Communi-Kate's intelligence, As we may well suppose Her fruitful mind is ever bent On teiling what she knows.

There's intrl-Kate, she's so obscure, 'Tis hard to find her out; For she is often very sure To put your with to rout,

Prevari-Karc's a stubbern maid, She's sure to have her way; The cavilling, contrary jade Objects to all you say,

There's after-Kate, a perfect peat, Much given to d'apare; Her prailing tougue can never rest, You cannot her refute,

There's dislo-Kate, in quite a fret, Who fails to gain her point. Her case is quite unfortunate, And sorely out of joint. This tribe is especially engaged in the cultivation of Latakia tobacco. At the end of December the ground is irrigated. Equivo-Kate no one will woo.

The thing would be absurd; She is so faithless and untri You cannot take her word.

There's vindi-Kate, she's good and true, And strives with all her might Her duty faithfully to do. And battles for the right.

There's rustl-Kate, a country hass, Quite fond of rural scenes; She likes to ramine through the grass, And through the everyreens, Of all the maidens you can find,
There's none like edu-Kate;
Because she elevates the mind.
And nims at something great.
—New York Weekly,

INCREASE OF LUNACY. (New York Medical Record.)
Public opinion has decided that this is watered according to the state of the weather, and must receive general attestion.

The harvest sometimes begins in August, but generally lasts through September. The plant is cut, the leaves removed, tied in budies, and placed on mais to dry in the aun. In November this process is finished, the tobacco is placed in horsehair sacks, and put on the market. The merchants subject the leaves to a new drying, and then sort them out according to color, perfume, and general ended which the finest is obtainable only from the more elevated plantations of the Arsariehs.

Dr. Ramachandravya, a converted Hindoo pricel, is preaching in Trement temple. Boston, and is altracting considerable attention.

(New York Medical Necord)

Fublic opinion has decided that this is a neurotic age and that insanity is ever on the intensity is like sausages. It all depends on the old iston, Me.

woman who makes them." In the Westminster Review is a slashing article at tacking the arguments of the lungar commissioners which they bring forward in support of their contention that the increase is only apparent. The writer of this article says that there is a real substantial and progressive increase, an backs up his words with figures. In 19 In England there were 2.02 lunaties in every 10.000 population; in 1895 there were 3.15. Where there were in 1862 1.36 in every 10,000 of the population, in 1885 there were 2.96. In 1862 in Scotland there were 2.01 lunaties in every 10.00 of the population; in 1855 there were 3.39. Flaure so startling as these will take a great deal of explaining away, but to a large extent they are misleading. Statistize in hinacy must be dealt with very broad-ly and cautiously. One reason for the great Increase in the population of hosgreat Increase in the population of hos-pitals for the insane is the fact that lunatics are looked upon with different eyes than formerly. In the early part of the century insanity was regarded with horror or seem, and with little feeling of pity or sympathy. The truth that it was a disease possible to cure had not entered men's minds. An asylum was a prison, the inma es of which were treated more harshly than or minals; now that more harshly than criminals; now that asylums are recognized as hospitals, they contain inmates who formerly were not counted as junctics. The advance England in the number of the insane by been almost wholly in the pauper class, and doubless is due to the improved ac-commodation and treatment and the conarquent enhanced appreciation of the benefits of being an inmate of a hospital This state of affairs appears also in this country, still the fact that there is some increase is more or less self-evident,

WEATHER NOTES BY CIPHEL All reports, communications, and mat-

THE CHANGING YEARS.

Old letters and portraits I found today, Old songs of my youth's fresh morning; And I stance at them here in the twillship

With a smile, half sad, half scorning, I had them saide long years ago— Times change, and we change with E'en these poor old songs that we used to know Seemed perfect once in their rhythm.

But now to the shudes of oblivion cold-The once-leved arains are bankhed;
The once-leved arains are bankhed;
The faded letters are dim and old
And the portraits' chaims have vanished.
The faces that once we deemed so fair
Today are prized but lightly.
And we change the gold for the raves
hair.

And think that it gleams more brightly. Yet at times an echo may reach our eurs. And a painful mem'ry dunnt us, Or a face come back from the buried

Or a face come such from Scars,
With a wan sweet smile to hanni us;
And the letters that dead cold hands
have traced
Seem written in lines of fire,
Though those idois by others have been
displaced
And fleeting is each desire,

O, dim pair links with the vanished past,
With the days that have gone forever.
O dreams and vision that hurried so fast.
To the declare land of Nover.
I needs must bury you far away.
From the light of life's sunshing beam-

ing.
In a still dark world where day by day.
No sound shall disturb your dreamin -Maud E. Szegent, in New York Weekly, SIMPLY IRRESISTIBLE.

(Indianapolis Journal.) Suppose starvation is an incident of the varch; suppose the bones of the unsuwill "arrive." When adventurous Amer-leans have set about an achievement of this kind they have always wen; they will win now. Many will full by the way-it is the history of such undertakings-but mare was go on. Science, enterprise and skill will go with them, and presently into that bleak regions will come railrands and machinery and the comforts. If no-to the luxuries of divilention. A bigh perce will be paid for them in the form of human life and suffering, but that is the history of the advance of civiliantan everywhere. At all events, it is not worth while in try to stem the life in the setting toward the Kantelke. Though it may waste inself on a lifer shore. I current new is irrestable.

Coon cat farms are operated near Lew- to Mexico \$17,000,000 worth of goods and