Recreation is an act by which a porsen exhausted by physical or mental work is recreated, made ever " good as new." The ancients invented the word, and seem to have had a penetration that was in advance

of the physiological knowledge of their day. But recreation, in popular usage, has dropped down from re-creation, almost as far as " heliday" handropped down from "hely day." All sorts of sports and pleasure seeking are jumbled together, and called recre-That, however, alone is a recreation which, interchanging with customary labor, alds in keeping the system in a state of high health, or helps to restore it after undue exhaustion.

What may be recreation to one man may not be recreation to his neighbor. A dance may theroughly recreate some parties, but it is seldom a benefit to the class addicted to it, and never as generally indulged in through the midnight hours, and in vitiated air. The various employments of life generally use men and women up faster at some one point than at others. This is apt to establish a weak point at which they soener or later break down. What is needed is that the overworked part be allowed to rest, by calling some other part into action.

The overworked brain should have its energy diverted to underworked muscles. Exhausted muscles are equally recreated by interchange with interesting brain-work. The overtaxed housewife and mother is best renovated by a pleasant ride, by a congenial visit to pleasing scenes, and by really diverting smusements. Often sn hour er two a day with some instructive or entertaining book may actually keep her from becoming unduly strained by her cares and work.

Brain-workers may find recreation even in varying their mental employments. Gladstone diverted himself with translating Homer, and ex-Gev. Long with translating Virgil. Rufus Choate, whose excitements were mainly in the court-room and in Congress, said that, were it not for books, his brain would craze.

He whose mind tends too strongly to any one mood needs to arouse an eppeaite mental stimulus. Poer Cowper wrote his John Gilpin as a help against gloem. The sick need to be diverted from their ails by whatever is seething or hopeful or cheering. To do it effectually often requires as much tact as tenderness on the part of friends.

Fresh Air and Ventilation.

The question naturally occurs, What rule can we have so as to know that we get enough fresh air and not too much? The general principle is simpler than its application. It is this:

The average amount of air breathed by every person is about 24 cubic inches at each breath, with about 20 respirations minute. This would be a cubic foot in three and a haif minutes, or 400 cubic feet in 24 hours, or the centents of a room seven feet square and eight feet high. But this is only a fiftieth part of what every healthy person needs, for breathing vitiates the air rapidly, because the air exhaled has 100 times as much carbonic acid gas as the atmosphere, while twice the amount contained in the atmosphere, or eight parts in 10,000, is as large a proportion as can be breathed without injury to the health. Crowded rooms in winter, schools, etc., are semetimes found to contain three or four times as much, and headaches and other ailments are the consequences of breathing the same air over and over again.

There should, therefore, be enough fresh air for every person daily to amount to 20,000 cubic feet, or enough to fill 18 rooms 10 feet square and 10 feet high. This would be amply supplied by an opening, tube, or orifice three inches square, with a moderate current. In the daytime there is usually enough air introduced into rooms through opening doors, cracks in window casings and in other ways. The chief danger is in sleeping-rooms, where pains should be taken to have a circulation. When the room is warm the air outdoors is quite cold, constant, and sufficient currents are caused. hundred persons should have a ventilating orifice equal to two and a half feet square.

Contagion in Scarlet Fever.

Scarlet fever can be communicated by infected milk, and, as far as we know, the milk has only to stand in the room where the disease exists or has existed to absorb the germs, which are so subtle, so light and yet so tenacious as to float in the air and adhere to particles of dust.

We all know how much dust is constantly fleating in the air. Let a beam of sunlight pass through an opening in the shutter, and we can readily see how the scales of skin from the body, pieces of lint, etc., can carry these microbes, which may be thrown off in the mucus from the nostrils and mouth or in

the perspiration, and even in the urine. Not only are these secretions germ carriers—that is, contagious—and they have all been proved so by direct ineculation, but the passages from the bowels, as well as the urine, are so-in that way sewer-air may be a means of their conveyance; drinking-water also, as well as the vaper from soil on which these matters have been thrown. Bear in rage, vowed that she would never again mind, then, that the scarlatina poison can be it does not need the personal contact of individuals; that it retains its vitality for months, and even years, unless it be subjected to certain influences that either entirely destroy it or deprive it of its malignancy. These are intense heat, especially boiling or steam, plenty of fresh air and certain chemical substances, as chlorine, sulphurous acid, and ethers. There is one other point which is important. It is now known that animals, such as horses and dogs, engaged to be married to Miss Hranueli. have a disease which is evidently scarlatina; they can be infected by the scarlatina of man, and probably their disease can be communicated to man.

The poison of scarlatina is, then, either inhaled by the individual or is swallewed. It is then taken up by the circulation, and, produced, and the symptems of the disease show themselves. This period between the reception of the poison and the appearance of the symptoms is called the period of incubation : this is known to be either from one to six days, in some cases longer.

EMPTER.

THE CHINOOK DANCE

Yakima Indians Supplicate the Good Spirit With Word Incantations.

The Indians are by nature superstitious, but the aggressions of civilization is some quarters have killed many of the eld beliefs of the Yakima tribes in signs, "hoodoes" and the efficacy of pum-pum and Tumanimus dances, and the incentations of medicine men in driving away the evil spirit. There are some, however, who refuse to conform to the new customs and revel in superstitions handed down by their untutored progenitors. This faction recently held their annual Tum-animus dance and feast on the reservation just below Union Gap. A reporter was on hand with the expectation of capturing an interesting item, but the mummeries which were wierd and fascinating were at the same time entirely unintelligible. At the head of the Gap on a promontory a large white flag fleated from a pole, and two miles further on blue, white and orange flags marked the long, low building or shack where the exercises were being conducted. The medicine house, for so it proved to be, was almost seventy feet in length and completely covered with the matting. From the inside come the monotenous chant of many veices and the steady beating of Indian drums, but although the Signal representative and a young lady who accompanied him walked completely around the structure, they could find no entrance, and were debating a plan of action when a fly of the matting suddenly flaw up immediately in front of them, and the hideous painted face of a fantastically clad siwash presented itself to view and nearly scared the young lady into convulsions. A friendly wave of the hand, however, disarmed fear and ushered the pilgrims before a scene of barbaric splendor and gretesquenes which would tax the pen of a Dumas to describe. On a puatform covered with skins, at one

end of the ledge, Indian children were crowded, and in front of the little ones was the orchestra of six huge bucks with instruments which appeared to be made of sheepskin stretched over empty cheese boxes. Along the length of the temple or lodge were ranged the bucks on one side and the klootchmen en the other. They were all clad in gorgeous costumes and the many colored blankets and prints gave a rainbow appearance to the worshippers. Their faces were painted with orange, blue, red and white paints, and when there was any considerable space of solid color there would appear fairly well executed figures of moons stars, birds and beasts, in contrasting tints. All had fans of feathers and many wore head-dresses of fine furs, feathers, and even the horns of animals.

There are various pum-pums during the year for divers objects, the one just celebrated being the Tum-animus, or Chinook dance, held for the purpose of propitiating the Deity and bringing in the warm winds from the Orient to carry off the snows. When the winters are us usually hard the Indians do severe penanos, and three years ago, when the cattle and cayuses were dying by the hundreds, and the Tum-animus lasted tor ten days and the se'f-inflicted punishments were of a rigid nature. Sa-luckin, one of the head Indians, took a dull knife and hewed out great blocks of flesh from his arms, singing and dancing all of the time in religious frenzy. The next observance is the festival of the "re-burial of the dead," when the bones of Indians who have died or been killed will be exhumed, covered with new blankets and exposed to the view of relations. Then comes the salmen dance, at which the Great Spirit is entreated to send a free run of this succulent fish which form so prominent a factor in the Indian food supply.

The recent Tum-animus was under the direction of Co-ti-ah-kin, the head medicine man, who directed the observances by means of a bell. For hours and hours the Indians would dance and chant their songs, which are not devoid of harmony, until tired rature could bear no longer, and then they would fall on their knees and offer up their "amens" to the exhortations of the medicine man. The singing and prayers were all in the native language, and even the lookers on who were familiar with the jargon were unable to catch the drift of the importunings. The close room contributed much to increase the superstitious feeling and the weird scene was one not soon to b forgetten by those who were present,

VERY SAD.

A Tragedy in Real Life Stranger than Fic-

A romantic though melancholy history is that of Miss Frances Hranusli, of San Francisco. In 1879 she met, loved, and was | the cords, so I can rest better !" And in a loved by a dashing young seaman named | brief time merciful death released both Herman Schady, who sailed away soon after their troth was plighted, promising that when the veyage was ended he would return euli's ralatives opposed the match, and she cruelties inflicted upon these two slave girls, being convinced that they were trying by but as in all the cases heretofere recorded ing to the military part of the ordnance in treachery to keep her from her sailor lad. When she was informed some months later that her lover's vessel had gone down at sea. and that he was drowned, she refused to believe it, insisted that his letters to her were intercepted, and, in a vielent parexysm of open her lips in speech. Since that time carried in this way hundreds of miles; that | for seven long years, she has kept her vow. and all the efforts of her friends to induce her to break her voluntary silence have failed. The publication of this story a few days ago in a San Francisco paper attracted the attention of a guest at the Grand Hotel in that city, who called at once at the young lady's residence, and told her that he had shipwrecked in 1869, off Gibraltar, in company with a young man named Schady, who informed him subsequently that he was who lived in San Francisco, and that he had been separated from her through treachery. The stranger added that he had seen Mr. Schady a short time since in St. Petersburg. and had been requested by him to try and find his sweetheart, in order to tell her that he still leved her and was waiting for her. finding itself surrounded by material which | During the recital the stranger's story Miss develops it, vivifies it, becomes rapidly re- Hranveli sat apparently listening, but what he said seemed to make no impression upon her. Her mind was evidently a blank, and if her sailor lover comes back to claim his bride, he will find, instead of the sprightly and beautiful young girl he left behind him seven years ago, a hopeless imbedile.

SPRING SPARKLES.

A note-orious affair-A concert. Striking back boys are not puglists. Fault's profits—The wages of sin. Unessy lies the head that wears a swell. A school for liars—A school of fish, The junkedealer is a buy metalist, A foot rule-Den't wear tight shoes A shocking affair-The electric battery. The hands of a toy watch are pushed for

Desirable Quarters-Twenty five cent pleces. The finest toilet scaps are sold by the scents' worth. What interjection is of the feminine gen-

der? Alas! When the car drivers strike, they do not brake anything. A carpenter may have many virtues, still

he can't get along without vises. There is one thing which cannot be "slow and sure," and that is a watch.

Swelled heads are more than coronets and "guilt"-edge stock than Norman gold. "This the widow of my discontent," groaned on old miser who married an extravagant relict.

Among the "society offenders who might well be under ground" we may mention the telegraph wires.

There is nothing new under the sun. Neah made the "arc-light" when he dreve out the animals en Ararat. "We will take what we need," is the

motto of socialists. That assures a bath, at all events, "Hello, Judson, how are you?" "Pretty

well, thank you." "How are you at home?" "Wife says I'm rather grumpy." The fashion papers say several new varieties of ladies' hose are shown. We presume

it is all on account of the muddy cressings. There is said to be a kind of sympathy between extremes. To illustrate, many a homely man's head has been turned by a

The young woman who can broil a steak in five minutes is more useful than the young woman whe can successfully speak five languages.

pretty girl's foot.

An exchange says a sure cure for cold is to stuff the nostrils with beeswax and starve the cold out. Wonder if a few whacks on the nose itself wouldn't be quite as effect-

"The cockroaches in this house are remarkably veasatile," said an actor at a hotel table, picking up a biscuit. "I notice that they appear in different rolls every morning. The spring style in lynchings seems to be

entirely different from the one heretofore in vogue. Single copies, life-size, were a la mode last year. This season the popular fancy runs to groups, A writer says that corporal punishment

is no lenger practiced by parents pessessing common sense. This may be true in regard to boys, but we notice that girls are still brought up with a "switch." "My dear," said a husband to his wife,

"I am unable to get any sloep. I have tossed about ever since I came to bed. wish you would get up and prepare me a little laudanum," "It's hardly worth while, now," she replied, consulting her watch. It's almost time to build the kitchen fire." Then he sank into a quiet, restful slumber.

Cruelty to Brazilian Slaves.

The poor slave girl, Joanna, who had been so cruelly beaten by her mistress, D. Francisca da Silva Castro, a resident of the aristocratic suburb of Botafogo, was mercifully relieved from her sufferings by death on the 14th inst., (February.) That was a generous action of the editor of the Gazeta da Tarde and the Cenfederacao Abolicionista in caring for her and snother unfortunate slave girl, Eduarda, who was discovered in the same house. Both of these girls, one 17 and the other 15 years of age, presented a horrible appearance—their boiies covered with old and fresh scars, bruises and sores, their wrists cut and swollen from cords, and their heads and faces bruised and swollen from the blows received. Fertunately, both of them were immediately photographed, so that there can be no question hereafter of exaggeration. The older girl, Joanna, was so seriously injured that she died on the 14th, and the death scene was one that will never be forgotten by those who witnessed it. In her delirium she called on her companien, "Eduardo! take off body and soul forever from the bonds of an inhuman institution which must answer hereafter for crimes like this. The misnothing will be done. Brazilian justice has no punishment for the crimes and cruelties of the slaveholder, nor has it even sympathy for the sufferings of such helpless, downtrodden creatures as these two poor slave girls.

Whiskey or Whiskey.

I am inclined to think that the trade spelling of this word varies somewhat with the nationality of the particular member. have observed that the Scotch firms seem to adopt the form whisky, Irish firms the form whiskey. In a London periodical devoted to subjects connected with the liquor trade generally, entitled Drinks, of which the February number is now before me, I find the spelling whisky used, moreover, quite incidentally throughout a short article in such a way as to indicate that it is the ordinary orthography of that journal. On the whole, therefore, I think that the evidence peints to whisky as being both the modern Scottish orthography and that generally in use except in Ireland.

An exchange asks: What can the Hindoe? Well, almost anything is better than ideling away his time.

It is asserted that Henry Irving takes snuff. This is prima facie evidence that he is a good enough actor at a rinch.

were of the contract of the co

DEATH DEALING ARTILLERY.

A Sketch of the Boyal Gun Factories at Woolwith.

The operations at historic Weelwich in connection with the manufacture of British ordnance are Titanic in their proportions. In what is called the East Forge were cast the monster guns to which have been given the name of "Woelwich Infants." Down the length of this forge are furnaces in which are heated almost to a white heat the bars of the coils from which these guns are built up. At the mouth of the furnace is a machine which, when the bar is of the preper temperature, seizes it and winds it round and round in a glowing spiral. There are teveral steam-hammers at work in this forge. varying from 3,000 to 6,000 pounds in weight, used for welding together short bars of iron to form one long bar for coiling. In the West Forge are two steam-hammers of immense power. The largest, a twelve-ton hammer, is used for producing the large forgings for the trunnion hoops. The force of its heaviest blows is computed at 400 tons, while it is under such perfect control that a blow can be struck by it which will crack a a nut without wounding the kernel. THE FORTY-TON HAMMER

Is in a shed close by and was first used in May, 1874, on the occasion of the visit of the Czar of Russia. Its falling portion, or "hammer-head," weighs exactly forty tons, and the "striking fall" is fifteen feet, but by the injection of steam into the cylinder ed in the groin at Cut Knife hill, have above, it is driven down with such immensely increased force, that the blow is equal to what it would be if the hammer fell of itself from a height of eighty feet The framework required to sustain aloft this weight is formed of two immense iron piers, which at about ten feet from the ground bend over so as to form an imperfect arch, open in the center for the rise and fall of the hammer, and bearing the upper pertien of the apparatus. The entire height is fortyfive feet; the base covers an area of 120 feet square, and the entire structure weighs 550 tons. It rests upon a foundation of blocks of iron weighing 650 tons, under which to a depth of thirty feet is concrete and timber. As nearly as percussion can be represented by weight a blow from this hammer counts for 1,000 tons.

THE MUSEUM OF THE ROYAL ARTILLERY Is at the east end of the long front of the arsenal ; is supported by the subscriptions of the efficers and, though occasionally assisted by the government, is a private institution. It includes a large collection of guns and arms of all sizes, dates and countries. There is also a most extensive and varied collection of stuffed birds and beasts, sent home by efficers from abroad, brought down by their guns in several parts of the world, and sent home to be kept at thoir former quarters. There are skulls of the elephant, walrus and mammoth, mummies, heathen gods, groupes of geological specimens, models of saddles, etc.; in fact, objects of all kinds which are likely to instruct or interest those for whose benefit the museum was institued. THE EAST LABORATORY

Is isolated from the rest of the arsenal and is closed to visitors unless by special author- | the third bullet, when he had his rife is ity. Here the small arm cartridges are sition for a shot, penetrated the man gently made; as are the rockets, cannon cartridges | his right arm. and other articles, the manufacture of which are dangerous. In these portions of the arsenal a few men and hundreds of boys are employed, and so perfect is the system upon which the work is conducted that accidents are of very rare occurrence. Machinery has been devised by which risky operations are performed in a tube, through which the force of an accidental explosion is carried away, and other precautions are taken by which the chances of the loss of life through accident are reduced to the norrowest limits, Everybody employed in these works changes his clothes on entering so as to avoid the possibility of taking in any dangerous article, and they all put on boots in which there are no nails but copper ones. Large alippers in which persons entering the incleaure on business encase their feet are also provided. Within the limits of the arsenal is a 500 yard range for testing small arms and ammunition, and outside is a longer range for testing larger guns. The very large guns, however, are taken to Shoeburyness, off the Nore, for testing.

OTHER PLACES OF INTEREST Are either directly or indirectly connected with the arsenal, but the limits of this article will permit only a passing reference; to two of them.

The Barracks fer the Royal Horse and Foot Artillery are the best in the Kingdom and the principal front is one of the finest buildings of the kind in England. In cennection with the barracks is a theatre and a handsome church, while everything possible to devise for the comfort and pleasure of both officers and men is provided.

The Reyal Military Academy was originally established in 1719, but was not fully organized until 1741, when George II., and claim her for his bride. Miss Hran- tress has been called upon to answer for the by royallwarrants directed the founding of an academy "for instructing persons belongthe several branches of mathematics, fortifications, etc., proper to qualify them for the service of artillery and the office of engineers. Prince Arthur and the Prince Imperial of France were educated here.

An Incident.

BY CHARLES K. BOLTON.

Three men talked gayly on a west-bound train, And laughing, now and then became profane.

A little girl near by could hear them swear, And blushed until her face was doubly fair.

Then, rising from her seat, she softly went To him who seemed the most irraverent,

And placed her pocket Bible in his hand; The strong man colored at her reprimand.

He ceased to talk, and scanned each field and Until they halted, when he left the car.

But soon he came with roses white and red, And giving, kissed her, as he bowed and said

"Good-bye, my child; I'll keep the book you And read its pages long as I may live."

HORTHWEST VETRUE

Some of the Wounded Soldies Who

on the lick lit Ganner Asselin, of "A' bu was wounded in the shealder of Fish Creek, has received he He receives a pension of 55a will reside in Jolliette, Quebe.

Provost-sergeant Gaffney, of "Provost-sergeant Gaffney, of "Provos in the arm, and, a piece of sarp land.
etrated the wound, his arm will denie

Gunner M. Wilson, late of "A" wounded at Fish Creek, will be plent of a pension of 55 cents produced an unber in the bec legislature. The bullet that Wilson struck him on the breat int; happening to hit one of the butters, off and entered the left arm. Alter putation of the erm, the button, not before neticed, was taken out Gunner MoNamee, of "B" battery in the Northwest, but lately purchase

Corporal Williams and several of B" battery, after returning from the of the troubles, went to England

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NGER

Cerporal Morton, of "B" battery

Ganner A. Malvey, of "A" batter, is in the hospital at the Tete de Poti racks, and is not expected to record is a native of France, and is on the lie pension of 60 cents per diem. He co very severe cold on active service, been in the hospital since January.

Gunner Pierre Langlois, of Group P. Q, served five years in "B" batter six in "A," and is still a member of a ter corps. He returned from the North in November, suffering from theun and is unable to do any hard work. lois has been recommended by the m commission for a pension,

Gunner King, of "A" battery, war tured to the Northwest. His penda be 55 cents per diem.

Gunner Fairbank, of "A" battery, was wounded in the leg at Batoche, will ceive a pension of 55 cents per day, B still on the sick list. Gunner J. Steut, of "A" batter

another man yet on the sick list. Hi run over by a gun carriage at Batton spine was injured, and three ribs were en. For seventeen weeks he lay ba life and death, but is now recovering. pension will be 60c, per diem, Staff-sergeant Mawhinney, who who sing

sergeant major of "A" battery h Northwest, will receive 90 cents pri pension. His experience is a very me able one. In the engagement at Fin (a he was shot three times within a pri five minutes—the first bullet went to his right thumb; the second stancklin age cap, knocking it and the tuque d;

Staff sergeant Walling of "A" be way will receive a pension of 90 cents pri He is suffering from eczema and en veins, brought en by excessive marchi the Northwest.

PERSONAL.

Archer and Wood, the two noted l lish jockeys, according to the host assessment, made last year respectively 000 and \$45,000.

One of the wives of King Thebar presented by some British officen bottle of gin, which she used to perime clothing, refusing to drink it.

It is said that Tom Keene, the true has a lot of ground on Staten lake which the Baltimore and Ohio Rallian pay him \$300,000 at any time.

The Pundita Ramabai, now visiting ica, is a daughter of the Pandit of he who devoted his wealth and life cause of emancipation of the work The late M. Giequel and General

were the only Europeans authorized Chinese Government to wear per feathers in their caps and tunics of I yellow. The Prince of Wales intended to

his recent trip from London to Canna out a stop, but could not resist the tion to spend thirty-six hours in Pa see " Sapho."

Miss Braddon's next novel will by tled "The One Thing Needful," first appear as a serial in journals and abroad. It is the twelfth novel author thus published. Mr. Henry Labouchere, the

Democrat, is in his 55th year. Heis to some of the most aristocratic turns England, is rich, able, witty, a fine a bold thinker, and withal he is aince D. W. Bushyhead, principal of the Cherokee Nation, is a fine-leokist of half-breed parentage. He is preacher, quite rich and well all

He was entered at Princeton, but not p Princess Isabella, heir to the the Brazil, is extremely religious, and times the astenished subjects of its father have beheld her sweeping of the church clad in a coarse gom

mility of spirit, F. Marion Crawford, the Arrangement, lives in his beautiful ville ! onto, near Naples, situated at 100 looking the sea. Near by it than two hundred years ago, the tality. Mr. Crawford is a sal picture of health and beaty,

32 years old. " Poor Carletta," the care Empress of Mexico, is reported the close of her tragic career at the tle of Bouchot, near Brussle. tragedy which eighteen years her life and darkened her reach,

she had passed, and she had an imaginary world of regi -an empress in bedlam.