The AUTOMOBILE

FIRST TUDOR SEDAN OWNED BY QUEEN MARY.

The earliest coach and the latest sedan—both Tudors!

Queen Mary's was the first Tudor sedan.

Creation of the original Tudor sedan is credited to "one Walter Rippen," by Ralph Strauss in his "Carriages and Coaches, Their History and Evolution."

"Rippon's first coach is supposed to have been built for Queen Mary in 1556," says Strauss, "and in 1564 the first 'hollow-turning' coach with pillars and arches, for Queen Elizabeth, though precisely what is meant by 'hollow-turning' coach is difficult to conjecture.

"This same Rippon, twenty-four years later, built another coach for the Queen which is described as 'a chariot throne with four pillars behind, to bear a crown imperial on the top, and before two lower pillars whereon stood a lion and a dragon, the supporters of the arms of England.'

"It could not have been very comfortable," observes Strauss, "and Elizabeth seems to have preferred another coach brought out of Holland by one William Boonen, who about 1560 was made her coachman, a position he was still occupying at the end of the century.

"Boonen was a Dutchman, whose wife is said to have introduced the art of starching into England, whence followed those huge ruffs so conspicuous in all the Elizabethan portraits.

"Boonen's coach could be opened and closed at pleasure. On the occasion of the Queen's passing through the town of Warwick she had 'every part and side of her coach to be opened, that all of her subjects present might behold her, which most joyed they desired.'

"This coach is described as 'on four wheels with seven spokes, which are curiously bound round with thick, and a rime secured by pegs.'

"Even this coach, however, can not have been very comfortable and in 1568, when the French Ambassador obtained an audience, Elizabeth was complaining of 'aching pains' from being knocked about in a coach driven too fast a few days before.

"'No wonder,' comments one historian 'that the great Queen used her coach only when occasions of state demanded.'"

LIFE OF TIRE HINGES ON CONDITION OF VALVE CARE.

"A very delicate piece of metal about one inch long, faced on one end with a slight piece of rubber and surrounded by a small spring of very delicate nature, plays an exceedingly important part in the life of every automobile tire. It is known as the valve core. It is the little metal strip which screws into the inside of the valve stem. In large pneumatic casings it is called upon to hold back a force of more than 100 pounds which automatically increases with severe road bumps," says "Automobile Digest."

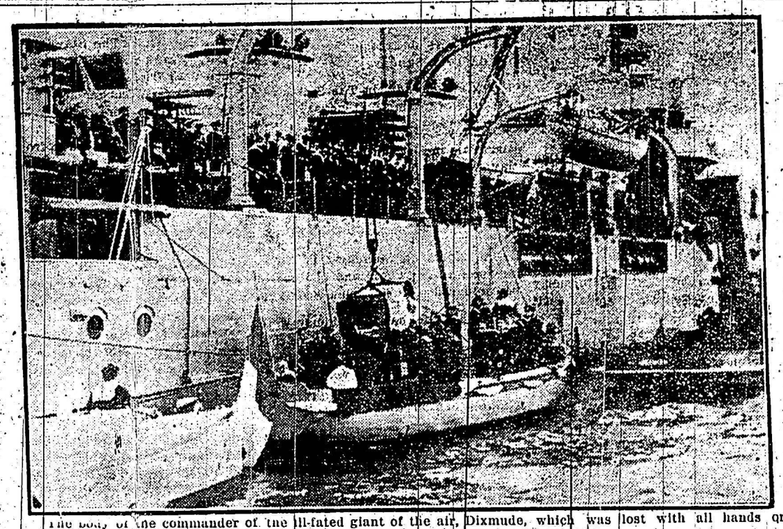
"A valve core frequently lasts as long as the casing, but tire experts recommend that this little piece of mechanism be watched carefully at all times so that it will be in good working condition and will not permit any of the air to escape from the tube. If the spring grows weak or the rubber becomes worn, a new core should be inserted."

WRENCH HOLDS PIPE.

A pipe cannot be held very securely in the ordinary type of bench vise, as the jaws permit only a single line contact on each side of the pipe. By using a monkey-wrench, with the jaws placed along the axis of the pipe, the effect produced is almost the same as that of a pipe vise. The wrench should be set so that it bears on the pipe only on the edges of the jaw.

SPARE IS BAD BUMPER.

Never use the spare tire on the rear as a bumper.



The body of the commander of the ill-fated giant of the air, Dixmude, which was lost with all hands on board on a flight to Africa, is shown arriving at Toulon aboard a French battleship.

Insulin Exhibit at British Empire Fair.

Brain power is such an intangible thing that it not only beggars description but it absolutely defies adequate photographic reproduction. Consequently the University of Toronto, in preparing the exhibit which is now on its way to the widely heralded British Empire Exhibition, which is to be held at Wembley Park, London, England, from April to October of this year, had to resort to a display of the material things of the University's life. The idea lying behind the University exhibit is that the right type of prospective immigrant to Canada will be interested in knowing the educational facilities in the Dominion, that some people, seeing that their children would be able to avail themselves of the very best of education in this country, would decide to emigrate.

Last spring, when the British Empire Exhibition was first talked of in Canada, Sir Robert Falconer, President of the University, expressed to the Director of Exhibits, Mr. J. S. McKinnon, his opinion that higher education in Canada should receive attention. This suggestion met with approval and the University of Toronto was asked to supply an exhibit showing the process of manufacture of Insulin. This has been prepared by Dr. R. D. Defries of the Connaught Laboratories and is a very attractive one. Insulin is also to be exhibited by the Medical Research Institute of England, which holds the patent rights of the serum for Great Britain. The Institute has asked for photographs of an historic interest from the University of Toronto to be included in its display. The photographs sent were of University College, the Medical Building, where Insulin was discovered, the Insulin Building, where Insulin is being manufactured, and the original still used by Banting and Best in their early researches. Thus the University of Toronto will be represented in two Insulin exhibits.

The main University of Toronto exhibit is of a photographic and descriptive nature. The principal group consists of photographs of forty-eight important University buildings arranged in groups of six in eight frames measuring six feet by three feet. A general group contains pictures of Convocation Hall, Simcoe Hall, the University Library, Hart House, the Memorial Tower and the Royal Ontario Museum. The Arts group contains pictures of the four Art Colleges, Victoria, Trinity, St. Michael's and University, and the two theological colleges, Knox and Wycliffe. The six Applied Science buildings, namely the Mining, Engineering, Electrical, Mechanical, Milling and Observatory buildings, are grouped in another frame. The Medical group includes the Medical, Anatomy, Pathology, Insulin, Toronto General Hospital and Connaught Laboratories buildings. The Field Husbandry, Dairy, Poultry, Central Assembly Hall and Macdonald Institute buildings of the Ontario Agricultural College and the new main building of the Ontario Veterinary College at Guelph compose a fifth group. The University Men's Residences, the University College Women's Union, Queen's Hall, Annesley Hall, Argyle House and Burwash Hall form a residence group. One miscellaneous group includes the Ontario College of Education and University Schools building, the Royal College of Dental Surgeons, the Ontario College of Pharmacy, the Botany and Forestry Building, the Household Science Building and the Toronto Conservatory of Music. Another such group includes the Biology, Chemistry and Physics Buildings, the Social Service Building, the Victoria College Library and the University of Toronto Press. The photographs used in the exhibit have been prepared in the Department of Photography under the personal direction of Professor G. R. Anderson.

In addition to these large frames there are two smaller frames containing each four interior photographs of the Royal Ontario Museum. There are also sixteen large pictures giving interior views of Hart House. A large descriptive chart has been prepared under the direction of C. W. Jeffreys showing the function of the University in preparing experts to develop Ontario's vast resources. Several portfolios of smaller pictures will be on hand. Flags and the usual decorative trimmings will complete the exhibit which is to be arranged under the direction of a University of Toronto graduate living in England.

W. J. Dunlop, Director of University Extension, who has had charge of arranging the exhibit, is preparing a well-illustrated booklet for distribution during the Exhibition. This booklet will contain an outline of the history of the University, including its inception, the story of University Federation, the courses of instruction and the Roll of Service (1914-1918), athletics, health service, and a general survey of the University's work.

The Optimist.

The fields were bleak and sodden,
Not a wing
Or note enlivened the depressing wood;
A soiled and sullen, stubborn snow-drift stood
Beside the roadway. Winds came muttering
Of storm to be, and brought the chilly sting
Of icebergs in their breath. Stalled cattle mooed
Forth plaintive pleadings for the earth's green food,
No gleam, no hint of hope in anything.

The sky was blank and ashen, like the face
Of some poor wretch who drains life's cup too fast
Yet swaying, to and fro as if to fling
About chilled nature its little arms of grace,
Smiling with promise in the wintry blast,
The optimistic willow spoke of spring.

—Ella Wheeler Wilcox.

Music's Universal Language.

There is constantly in our ears debate as to the amount of loss suffered by reason of the translation of an opera-libretto out of the language in which it was orighally written into a language more familiar to its immediate audience. There is also general agreement that poetry, or any other form of literature, loses essential qualities in the process of its reproduction in the idiom and with the words of another language than its own. But music has no such limitations. Its language is universal and of universal appeal. Given a knowledge and a love of music in its hearers, a Beethoven Symphony can be played to a moved and delighted audience from one end of the world to the other, and lesser forms of music are still more sure of their appeal whether its hearers inhabit the frozen north or live under tropical suns. Music is not only untranslatable. It needs no translation. This is one of the reasons why it may fairly claim to be the greatest of the arts.

My Neighbor's Chimney Smoke.

My kitchen window is frosted o'er
With fairy fantastic tracing,
Showing long plumed birds and white clad elves
With fine fern fronds interlacing.
I can catch a glimpse of the world outside,
I know it is cold and snowing,
And away through the flakes at the nearest house
A cloudlet of smoke is showing.

What though my window is white with frost,
The cold day dull and dreary?
It does me good just to see that smoke
(My world seems bright and cheery)
For I know at the fireside whence it comes,
I would find a welcome waiting,
So I sing my song, and my heart is warm
Though the storm seems unabating.

—Christina W. Partridge.

Mirrors for Repairs.

The last place one would expect to find a mirror is in the auto-repair shop. Yet a collection of small mirrors will be found to be very useful tools.

For instance, when examining the differential, into which a light cannot be inserted, a small mirror will be found useful to reflect the light from a lamp into the deeper recesses.

Again, when working in back of the instrument board, a mirror may be placed on the floor of the car, reflecting the light upward.

One great advantage of this is that the light need not be held close to the face, which not only makes for discomfort but frequently defeats its own purpose by supplying sufficient light temporarily to blind the worker.

It is a good plan to attach handles to the mirrors, so that they may be inserted into narrow places.

A High Style.

The ready wit of Henry Erskine, at one time lord advocate of England, has been preserved in many laughable stories. Mr. Walter Jerrold in A Book of Famous Wits records several of his amusing sallies. One day Erskine met a verbose friend and, perceiving that his ankle was tied up with a silk handkerchief, asked what had happened.

"Why, my dear sir," came the answer, "I was taking a romantic ramble in my brother's grounds when, coming to a gate, I had to climb over it, by which I came in contact with the first bar, and have grazed the epidermis on my skin, attended with a slight extravasation of blood."

"You may thank your lucky stars," said Erskine, "that your brother's gate was not so lofty as your style, or you must have broken your neck!"

Platinum Substitutes.

The great increase in the value of platinum during the last two decades has led many investigators to seek substitutes therefor. It appears that the search has been partly successful. Platinum clad nickel steel wire in incandescent lamps; wires of nickel alloys are now making the cheaper grades of artificial teeth; asbestos threads are taking the place of platinum wires in gas mantles; and fused quartz ware has come into general use in chemical laboratories in the place of platinum utensils. Yet the introduction of these substitutes has not affected the price of platinum. The demand for the metal seems steadily to have increased in spite of them.

Not Difficult When You Know How.

The young lady palmist looked deep into the eyes of the girl whose hand she held and said:

"I see by your hand that you are going to be married."

"Wonderful!" cried the girl.

"You are engaged to a man named Wilkins," continued the amateur seer.

"How amazing!" gasped the girl. "Surely the lines on my hand cannot reveal—"

"Lines!" the palmist sniffed. "Who said anything about lines?" You are wearing the ring I returned to Mr. Wilkins three weeks ago."

Chinese Diplomacy.

The following is the rejection form used by a Chinese editor:

"We have read your manuscript with infinite delight. Never before have we revelled in such a masterpiece. If we printed it the authorities would ordain us to take it for a model, and henceforth never print anything inferior to it. As it would be impossible to find its equal within ten thousand years, we are compelled, though shaken with sorrow, to return your divine manuscript, and for so doing we beg one million pardons."

Bicycling is the most popular form of locomotion in France. Recent tax returns show that there are more than five million bicycles in the country—many more than there were in any earlier year.

Beauty of Woods in Winter

Do not think that because the trees are bare of leaves all interest has fled from the woods. He is fortunate, indeed, who can take a stroll through the leafless arches and perhaps come upon the life both waking and hibernating that is sheltered there.

Suddenly the stillness may be broken by the merry chatter of a squirrel as he perches saucily on a nut tree and calls to his mate in the warm nest. If you are very still he will run to dig out some of his buried treasure, stored so carefully in the autumn. Unerringly he will go to the right spot, and after scraping away the leaves and dirt will reveal a goodly store of nuts that he had saved for just this future use.

The storehouse in the tree is often exhausted a month before spring, and so it becomes necessary to draw on the pit for more food. Squirrels that have buried their treasures in the ground can locate the spot even if the earth is covered with snow, and if there has been no midwinter thaw they will exhaust their energies in trying to get at their buried food. Their little feet are often scratched and bruised in digging through the icy snow and frozen ground.

One nature lover says that often he has found the half dead body of an old squirrel lying with his feet and legs lacerated and his strength exhausted. On digging down through the snow and dirt he has found every time a small store of nuts.

If a bunch of bats could be discovered in the hollow trunk of some old forest tree during the midwinter thaw your walk would be richly rewarded. They hibernate together; one bat fastens his claws into the tree, the second clings to the body of the first and so on. Thus they all hang together for mutual warmth. A flock of bats when hibernating looks very much like a bunch of bananas hanging from a tree, and in this condition they sleep throughout the winter, waking up only during the thaw.

They select a dark part of the forest and seclude themselves in the hollow trunk of a tree, so that they are rarely discovered. If touched by an intruder on a warm day they will squeak and make a great noise, but rarely open their eyes. To the touch they are cold and clammy, and on extremely cold days their limbs appear to be frozen stiff. With a slight blow (which of course would not be given) it was found that a wing or claw may be snapped off.

But when the bat returns to life again in the spring the wound is all healed up. They are probably the most curious hibernating creatures that we have. Their sleep begins early in the autumn and lasts until spring is well advanced. Then they wake up and rear their young, appearing around the house and the orchard in April after the flies and bugs.

Snowflakes.

I watch the feathery snowflakes
Come floating soft and light,
Till all the ugliness of earth
Is hidden out of sight.

If God so clothe in beauty
The street, the field, the tree,
Will He not weave with gracious hand
A pure, white robe for me?

Each tiny starry crystal
Is patterned like a flower,
And millions He with flawless art
Has fashioned in an hour.

For souls His breath created
How should His care be less?
Give me, O Artist Infinite,
Such perfect loveliness.

—Lilian Leveridge.

Winter.

Branch and twig are decked in ermine,
Summer paths are buried deep.
Winter clouds gloom dark and sullen,
Nature takes her Winter's sleep;
But though Winter wild is waging,
War against the earth below,
Safe from harm, the lovers are waiting
Underneath the Winter's snow.

So in life, when storm clouds gather
And the hand of sorrow's laid
On the heart, all crushed and broken
In life's Winter, sore afraid
Joy will come, the clouds are lifting,
Dreams and hopes, the buried low,
Gleam again through sunshine sifting,
When the Spring removes the snow.

—Helen B. Anderson.

And Avoid Disappointment.

"Many of the immigrants arriving in this country come here in search of liberty."

"You don't mean it? Why don't they take the little trouble necessary to write to some native-born American before they set out?"

Under His Breath.

Two Irishmen got into trouble at the factory in which they worked. The foreman sent for them. Pat was called into his office first and Mike waited outside.

After the fateful interview the former came out. Mike inquired how he had got on.

"Splendid," said Pat. "I simply told him to go to Hades."

Fortified with fresh courage, Mike went in to take his medicine. A few minutes later he came out looking very despondent.

"What happened to you?" said Pat.

"I got the sack," replied Mike.

"What for?"

"Well, I followed your example, and sent him to a warm climate.

"Did he hear you?" said Pat, in astonishment.

"Of course he heard me."

"You silly idiot," replied Pat, "I spoke under my breath."

Obscure.

A certain painter, says the Anecdote, has lost his mind and has to be confined in an asylum. To his visitors he says:

"Look at this; it is my latest masterpiece!"

They look and see nothing but an expanse of bare canvas. They ask: "What does that represent?"

"That? Why, that represents the passage of the Israelites through the Red Sea."

"Beg pardon, but where is the sea?"

"It has been driven back."

"And where are the Israelites?"

"They have crossed over."

"And the Egyptians?"

"They will be here directly. That's the sort of painting I like—simple and unpretentious."

A Sweet Little Place.

"What a sweet little place!" said the happy bride-to-be as her sweetheart showed her over her prospective home. "But I am afraid, Harbird, everything is so small. Now, look at this little pigeon-hole. Surely you don't call it a shoe cupboard, dear?"

"Darling," answered the young man, "that little pigeon-hole, as you call it, will hold a hundred pairs of shoes of the size you wear."

The pucker in her pretty brows quickly disappeared.

"Perhaps you're right, Harbird," she remarked.

Winter Trees.

The winter trees have kinship with the skies
When the pale sun of February lies
Upon the level west and the air is cold;
Then the last chilly rays like splinters gold
Come slanting up the fields, and swift they set
A torch in every treetop,—in the net
Of naked branches, in the maple brush
A twig or two will glimmer like a rush;
And up the apple trunks a pinkness pour,
And copper lights are in the sycamore.

But soon the twilight wanes, and suddenly
The lovely glaring from the maple tips,
And strikes along the evening cloud and glows
In richest purpurny hues and burnished rose.
And now by field and dusky wood and lane
The trees are faded down to drab again.
Only the upper branches in the sky
Reach for the colored clouds as they go by,
Tangle them in their boughs and pull them down
And wear them like a soft arboreal crown.

—Christine Curtis.

The Song of the Quill.

I remember, ladies fair,
Chinolines and powdered hair,
In those days I held full sway
Upon quaint desks of ladies gay.
Then for many years I lay
Useless—and might say passe,
Others held my honored place,
I felt that I was in disgrace
No lover's notes by me were penned,
I did not have a single friend.
But once again I am the rage
Used by Poet, Statesman, Sage
You'll find me resting all serene
Upon the desks of King and Queen.
For once again I hold full sway
On the desk of ladies gay.
To match their gowns of every hue
Pink, yellow, green, and Heaven's blue

—Jean McMichael.

Morning Soliloquy.

My Soul, good morning.
Another day has dawned for thee or me
Raised be the God who cherished thee.
He knows my faults, tho' great the same,
The tasks assigned, scarce begun,
And grants another day's respite
To web from cell and upload the night
Resolved to hold His [illegible] warpings
gladly [illegible] His world this morning
Good morning, my Soul.

—J. W. Shackleton.

Fish That Shouts.

Professor C. H. Greene, of the University of Missouri recently [illegible] to a number of scientists the [illegible] covered illuminated fish, whose habitat is Monterey Bay, California. The fish shouts when pursuing its prey.

Each fish, according to Professor Greene, is illuminated with hundreds of phosphorescent lights, and, when hearing food on smaller fish, is able to make distracting noises by drawing the gaseous contents of its swimming bladder through a narrow membrane from one side to the other.

Pat Knew Two Yarns.

The little son of the house was very quiet during the first part of the dinner, and everyone forgot that he was there. As dessert was being served, however, the host told a story.

When he had finished and the laughter had ceased, his little son exclaimed delightedly:

"Now, father, tell the other one."

Giving Away Then.

"You [illegible] gives away a great deal of money in charitable donations."

"Yes."

"Well, I've seen him give away money, chairs, a table and a pack of cards on occasion."

TESTAMENTARY

"Some day," said Perkins B. McGill, "I'll take an hour and make my will. It is a job that I despise, although I know it's sane and wise, for it reminds the shirking skate that he'll be some day in a crate, and o'er his head the goats will browse, and also sheep and bob-tailed cows. It should be done, I must admit, and shortly I'll attend to it, but just at present, as you see, I'm busy as a bumble bee, and I shall let it slide, I wot, until my work slacks up a lot." While he pursued his useful game a dark blue auto climbed his frame. He gave a few brief anguished pants, and bade farewell to wife and aunts, and journeyed to that shining shore where autos butcher folks no more. And his affairs were badly mixed; to get things straightened up and fixed, administrators and their clan came in a stately caravan. A second cousin filed a suit, a lawyer looked around for loot, and creditors sprung large accounts, and fakers asked for large amounts, and hungry relatives appeared with claims detestable and weird. And when it was all settled up the widow drew the Airedale pup, and all the balance went to pay the costs—which is the good old way. The widow's busy scrubbing floors and doing other drastic chores, and as she toils she murmurs still, "If Perkins had but made a will!"

Bargains.

[illegible] life.
[illegible] one unexpected
[illegible] bargains
[illegible] "long ago" we
[illegible] too high
[illegible] in the waste of
[illegible] show;
[illegible] not finish with its
[illegible] life.
[illegible] can teach us how to
[illegible] is really gain,
[illegible] bought for little, we
[illegible] lose.

—Nan Terrell Reed.

A Child's Faith.

[illegible] mother was thankful when [illegible] to authorities at the hospital told her that she might stay with her little [illegible] when after a long illness the [illegible] girl had to be taken there for an [illegible] Ruth was quiet and patient, she seldom complained and [illegible] anything to show how she [illegible] that the operation through which [illegible] to pass. She did not seem [illegible] and she met everyone with [illegible] with her night and day, her mother noticed that she was careful [illegible] her handkerchief in a place [illegible] could get it easily. There [illegible] strange about that, but [illegible] also observed that when [illegible] brought her a clean [illegible] Ruth would transfer to [illegible] that was tied into the [illegible] she had. Her mother [illegible] curious about the [illegible] something of which the [illegible] was so careful, and one day she [illegible] what it was she [illegible] such solicitude.

[illegible] looked up with tears in her [illegible] "I found it," she answered, "in the drawer where we left home; and I wanted that much with me." She let her mother unfold the knot in the corner of the handkerchief, and there in a tight little roll was a leaf from the Bible.

She wanted "that much" with her; she could take "that much" to the operating room; she could keep "that much" in her hand when the dressings were made. She had it when the stitches were taken out, and it meant, oh, so much to her! On the scrap was this verse:

When Eyes Tell Lies.

A well-known optician recently made the startling assertion that color-blindness is usually inherited, and not the result of disease.

Sometimes, like gout, it skips a generation. People who are color-blind are always supersensitive. There have been cases where men of seventy have hidden color-blindness from their friends throughout their lives.

The famous chemist Dalton, a Quaker, who first discovered color-blindness in himself in 1792, had only three normal color sensations instead of six. A flower which he was told was pink looked blue to his eyes, and in candle-light reddish. When he cut his chin one day he saw bottle-green blood flowing from the wound!

About a hundred years ago there lived a shoemaker who could not tell brown shoes from black, and always persisted in saying that anything pink was green.

Some people are color-blind in only one eye. While the right eye may see red as red, the left sees it as black.

The Idle Gold Piece.

[illegible] money, like idle people, has no proper place in the world. Don't hoard money; keep it employed. Put it in the savings bank that it may help along the great undertakings of business. That excellent advice comes from the Boston Herald, which tells this remarkable little story of a gold piece:

In 1846 an attractive ten-year-old girl brought to Boston to visit a rich uncle who had just returned from European adventures, received from him at parting a ten-dollar gold piece. She kept it as a memento. When she fifty years later she gave it to a favorite niece, who kept it as an heirloom.

It has recently passed into the hands of another young woman, whose father, a man of a practical turn of mind, said to her: "That gold piece has been doing long enough. We will put it to work."

And so he has deposited it in the bank, but first he did a little sum. If the original gift had been invested at five at six per cent. interest, a rate that could have been obtained during most of the time that the gold piece was idle, it would have amounted at the time his daughter received it to no twelve hundred dollars!

Giants of the Insect World.

The Atlas moth, a night-flying insect of Central Brazil, is one of the largest winged insects in the world. Its wings measure fourteen inches from tip to tip.

Another remarkable insect, found in the mountainous regions of India and Ceylon, is a spider that spins a bright yellow silk web about five feet in diameter, the supporting lines being from to twelve feet long. These webs are so strong that even birds and small lizards are caught in them. The spiders, with their legs stretched out, measure six inches across.

As soon as a bird is caught in this huge snare, the spider throws coils of web about its victim's head until it is blinded and choked to death.

In the jungles of the Island of Sumatra lives a spider measuring over eight inches across the back, and seventeen inches with legs spread out.

In Venezuela is to be found the largest insect known. This is the elephant beetle, which often weighs seven ounces.

Motors Blanketed, Horses Shivering.

A row of motors were noticed not long ago, parked along a street, each one carefully blanketed. Nearby stood two or three horses, without blankets, shivering in the icy wind. The psychology that blankets a car and allows a horse to shiver is something to study. Of course the same person did not do both, but from our experiences with human nature we believe it would be a safe bet that, if the ownership were transferred, they would act the same. The simple reason is that the inconvenient effects are not so immediate in the chilled horse as in the chilled motor. The horse is able to start when urged, the motor is not. And so they snugly tuck the warm blanket around the inanimate car, while the horse looks on enviously, wishing he were a machine.

A Clever Ruse.

Farmers who suffered from the usual pilferings of motorists the past season might try the plan that a summer hotel manager adopted. He had planted a flower garden, but the guests broke off blossoms whenever they pleased and were not particularly careful to avoid injuring the plants. Signs, "Do not pick the flowers," had little or no effect, but when the proprietor repainted the signs to read, "Flowers for sale" the depredations stopped immediately.