

COLUMBUS.

INTERESTING NEW DOCUMENTS RESPECTING HIS LIFE.

A Glance at the World as It Was Known to the Ancients and the Contemporaries of the Great Discoverer.

The discovery by the Superintendent of the Military Archives at Madrid of documents, probably setting at rest the doubts that formerly existed as to the birthplace of Columbus, must have awakened new interest in the history of the renowned discoverer of the past. It is to be noted, however, that the documents only affirm tradition, for Genoa has always been the Admiral's accredited birthplace. But if the discovery should lead to nothing but a more careful investigation of the records of his later history, it will have been of use. The character of Columbus has been greatly misunderstood, and his 600 biographers have in turn invested him with the glory of the religious hero and the contumely of the ill-tempered and crack-brained adventurer. An impartial critic must admit, indeed, that he was something of both, though more of the hero than adventurer, and that his biographers have erred considerably in what Mr. R. L. Stevenson would call their "point of view."

Educated, as it is supposed, in the local schools of Genoa, and for a short period at the University of Pavia, the youthful Columbus must have come in close contact with the scholars of the day. Naturally of a religious temperament, the piety of the learned would early impress him, and to this may possibly be attributed the feeling that he had been divinely selected, which remained with him until his death.

There is but little doubt that he began his career as a sailor, at the age of 14, with the sole object of plunder. The Indies were the constant attraction for the natives of Venice and Genoa; the Mediterranean and the Adriatic were filled with treasure ships. In these circumstances it is not to be wondered that the sea possessed a wonderful fascination for the youth of those towns. This opulence was the constant envy of Spain and Portugal. Columbus was soon attracted to the latter country by the desire of Prince Henry to discover a southern route to the Indies. It was while in Portugal that he began to believe that his mission on earth was to be the discoverer of a new route to the land of gold—"the white man's gold." For ten years he resided in Lisbon, from time to time making short voyages, but for the most part engaged drawing maps to procure himself a living. Here he married, here his son Diego was born and here his wife, who died at an early age, was buried.

Toscanello at this time advanced the theory that the earth was round, and Columbus at once entered into correspondence with him on the subject and was greatly impressed with the views of the Florentine scientist, both as to the sphericity of the world and the wonders of the Asiatic region. Columbus, in accepting these theories, ran no small risk of losing his life. Portugal and France in turn rejected his offers to add to their dependencies by his discoveries, and though his brother found many in England willing to give him the necessary ships to start on his adventures, Spain, after much importuning on the part of the explorer, forestalled her.

Then followed his four eventful voyages with all their varying fortunes, and his death, when over 70 years of age, in a wretched condition of poverty. The ready consideration of theories, not only dangerous, but so astounding in their character as to throw discredit on those who advanced them, shows him to have been a man of intellectual courage. Humility was another trait of his character, and in all his life it cannot be said that he acted in any but an honest and straightforward manner toward his fellow-men.

It is true, no doubt, that his recognition of slavery somewhat dims his reputation. He sold many Indians as slaves, but it should be remembered that slavery prevailed at the time, and it was only on his second voyage, when hard pressed for means to reimburse the Spanish treasury for the immense expense of the expedition, that he resorted to the barter in human flesh. Indeed, his friendly relations with the natives show that as a rule he must have treated them in the kindly manner which characterized all his actions.

Throughout the reverses of his long career, whether received with sneers, lauded as a benefactor of his country, put in chains by crafty fellow subjects, or defrauded of his discoveries, he continued a man of an eminently lovable character, kind to his family, his servants, and even his enemies. Americans are to do honor to the Columbian Exhibition to the name of him who, though not the first white man to land on the shores of the New World, was the first to colonize its fertile islands. Not only America, but the whole world, may emulate his virtues with advantage; for, even now, justice and mercy, courage and meekness do not always abide together.

THE WORLD OF THE ANCIENTS.

It will be interesting at this time, when the discovery of this great continent so largely engages the attention of all peoples, to take a glance at the world as it was known to the ancients.

The cosmographical ideas of the ancients were of the simplest character, and those which have been derived from the earliest Grecian literature regarded the earth as a plain stretching away from the Aegean sea until it ended in an horizon of pure ignorance, guided by the deep-flowing current of the river Oceanus. Beyond Oceanus even fancy began to fail. There was the realm of dust and darkness, the home of the powerless spirits of the dead, and there the hemisphere of heaven joined its brother hemisphere of Tartarus. As time passed the theory of sphericity or the spherical form of the earth was advanced and experiments were made to prove its correctness.

The Pythagoreans advanced it as one of their doctrines and Plato and Aristotle adopted it as correct.

Aristotle, in his treatise "On the Heavens," after detailing the views of those philosophers who regarded the world as flat, drum-shaped or cylindrical, gives a formal summary of the grounds

which necessitate the assumption of its sphericity, specifying the tendency of all things to seek the center, the unvarying circularity of the earth's shadow at eclipses of the moon, and the proportionate changes in the altitude of stars resulting from changes in the observer's latitude.

Aristotle made the doctrine orthodox; his successors, Eratosthenes, Hipparchus, and Ptolemy, constituted it an inalienable possession of the race. Greece transmitted it to Rome; Rome impressed it upon barbaric Europe; taught by Pliny, Hyginus Manilius, expressed in the works of Cicero, Virgil, Ovid, it passed into the schoolbooks of the middle ages, whence, re-enforced by Arabian lore, it has come down to us.

SIBYRIDS OF MYSTERY.

As geographical knowledge increased, stories began to circulate of vast bodies of dark and dangerous waters far away, and of islands in their midst. There it was said that there were other worlds or continents and some geographers, astronomers and geometers began to make use of the phrase of northern and southern, eastern and western hemispheres and myths and fables began to multiply.

The expanding horizon of the Greeks was always hedged with fable; in the north was the realm of the happy Hyperboreans, beyond the blasts of Boreas; in the east, the wonderland of India; in the south, Panchaea and the blameless Ethiopians. Nor did the west lack lingering places for romance. Here was the floating isle of Æolus, brazen-walled; here the mysterious Ogygia, naval of the sea; and on the earth's extreme verge were the Elysian fields, the homes of heroes exempt from death, "where life is easiest and death is farthest." No snow is there, nor yet great storms nor any rain, but always ocean sendeth forth the breeze of the shrill west to blow cool on men." Across the Ocean river, in the regions of the setting of the sun, all was changed. There was the home of the Cimmerians, who dwelt in darkness; there the grove of Persephone and the dreary house of the dead. In the Hesiodic poems the Elysian fields are spoken of as islands where heroes, after death, are transferred and flourish in immortal bliss.

"Them on earth's utmost verge, the God assign'd
A life, a seat, distinct from human kind;
Beside the deepening whirlpools of the main,
In those blest isles where Saturn holds his reign,
Apart from heaven's immortal calm they share
A rest unallied by the clouds of care;
And yearly thrice with sweet luxuriance crown'd
Springs the ripe harvest from the teeming ground."

The Islands of the Brest and the Hesperides were sought for by the most daring navigators through ages—and poets sang of them in hymns that were chanted by the wise, the beautiful, and the good.

"Oh, that I like a bird might fly from care over the Adriatic waves," cries chorus in the crowned Hippolytus:

"Or to the famed Hesperian plains,
Whose rich trees bloom with gold,
To join the grief-attuned strains
My winged progress hold;
Beyond whose shores no passage gave
The ruler of the purple wave."

"But Atlas stands, his stately height
The awful boundary of the skies;
There fountains of Ambrosia rise
Wat'ring the seat of Jove; her stores
Wat'ring the rich soil pours
All which the sense of gods delights."

HESPERIA THE UNEXPLORED LAND.

Hesperia, the land of the west, was a land which remained unknown and unexplored for a long period. It was, with the rude methods of navigation which were maintained during the early ages, far and remote from the habitations of the Greek tribes connected by the Archipelago. The sea which washed the eastern coasts was not a Greek sea, was devoid of the numerous islands with which the Greeks were accustomed, and when compared with the Aegean remembered an ocean.

The current was adverse to the Greek vessels, as it passed from west to east from the Tyrrhenian sea across to the Sicilian. Contrary currents were met with and the winds which prevailed there differed entirely from those to which the Hellenes were accustomed. The skies appeared to them a dark and insecure, and as they watched them they fancied that it was there that the mariners of the dead "densely shrouded in clouds and mists" passed along their gloomy paths. Accordingly navigation for a long time halted at the southern points of the Aegean, and then after circumnavigation had been entered upon timidly clung to the Hellenic coasts on its way to the Corinthian sea. This was the ancient route of the Carians by which they formerly brought the worship of Apollo to Delphi, and it was long before the Greeks ventured to cross the Sicilian sea.

The intercourse with the western mainland proceeded from the islands lying in front of the outer gulf of Corinth from the coast—lands such as Echenades surrounding the mouth of the Achaëlus; and from the larger and more distinct islands farther in the sea—Zacynthus, Same, Ithaca, and Leucas—which stretch from north to south in a crescent line in front of the gulf and whose joint length is about equal to that of Euboea. These are the islands called, according to an ancient tradition, the Ionian up to this day.

COMMERCIAL CORPUS.

The great coast island of Corcyra, now known as Corfu, at a very early period became the headquarters of a large maritime commerce, and from there spread along the west coast to Italy. Gradually the Greeks accustomed themselves to long and distant voyages instead of the easy summer trips, and entered the great western sea. They not only ventured to visit those parts of the Adriatic, which most abound in rocks and circumnavigated the Tyrrhenian sea, but they explored the coasts and bays of Campania and the mouths of the Tiber and Arnus; they proceeded past the Alpine ranges and finally reached Iberia, with whose rich treasures of precious metals they had first become acquainted on the coast of Italy.

The horizon of the Hellenes gradually advanced westward and broadened. Adventurous voyages of discovery led to the western and northern ocean, where the phenomenon of ebb and tide for the first time engaged the intelligent consideration of the Greeks. The original hothe of amber, tin and copper was sought out and attempts were made to deal scientifically with the large body of new geographical knowledge.

They followed in the tracks of the Phoenicians as far as the Straits of Gibraltar, in the vicinity of which they founded the city of Maenac. They ventured beyond the gates of Hercules and settled in the land at the mouth of the Guadalquivir, the ancient commercial domain of the Tyrians, who traded with it on their vessels, and the Tarsis ships transported large numbers of adventurous population into the distant land.

THE WORLD'S END.

On a Tarsis ship the prophet Jonas, centuries before Christ, attempted to escape from the hands of the Lord; thus was this colonial country thought to lie at the end of the world.

The Greeks gave it the name of Tartessus, and finally extended their marvelous activity from the Aegean to the shores of the Atlantic.

All the nations in any way connected with the Mediterranean were indifferently affected by Greek culture, and the original habitation of the Hellenic, the Aegean, with its islands and coasts, however small and insignificant a division it may constitute of the wide waters of the Mediterranean, yet became the Archipelago, i. e., the ruling sea among them all.

The commercial supremacy of Greece in the day of her prime is perpetuated in her colonial settlements, which up to this day bear the stamp of their origin, such as Marseilles, Toronto, Syracuse, Messina, and Argirentum, all of which have a Greek pedigree.

Some Curious Slips of the Tongue.

The tongue is unruly in other ways than pointed out in such vigorous terms by James the Apostle. It seems to sometimes take the bit in its teeth, if so mixed a metaphor may be permitted, and to run away from the directing mind, with results that hardly ever fail to cause no less confusion to the speaker than amusement to the hearer. The incident of the gentleman who, in cordially inviting some friends to hear his pastor preach, said to them, "You may occupy my pie," is perhaps already familiar. Equally laughter-provoking was the transcription made by a friend of mine who had undertaken to recite Bret Harte's "Heathen Chinee," and surprised both himself and his audience by the statement that

"For ways that are dark
And for tricks that are vain,
The heathen pie is chineilar."

It is probably because they more frequently appear before the public as speakers than any other class of men that clergymen are the heroes of the majority of the stories as to slips of the tongue. The Rev. Mr. A.—has this to tell of the Rev. Mr. B.—: Brother B.— is tall and gaunt of figure and pale and serious of countenance. Once, in bringing a meeting of special solemnity to a close, he caused many a smile by saying, impressively, "Now let us pronounce the Doxology, and I will sing the benediction." The quick wit of a hearer, who at once started "Praise God from whom all blessings flow" in stentorian tones, rescued the others from disgracing themselves by an outbreak of laughter. After the meeting had dispersed, said Brother B.— to Brother A.—: "Now you know, I saw that thing coming wrong and first, but for the life of me I could not turn it around."

Here are some more amusing stories of a similar character. It was a very significant change of a letter, but it spoiled what was intended to be an eloquent denunciation against idolatry, when the preacher cried, with impassioned earnestness, "Bow not thine eye to a needle," having meant to say, "Bow not thy knee to an idol." In the same way, the young clergyman with the correct Oxford pronunciation, in giving out the hymn "Conquering Kings," merely stumbled over the first vowel; but being unable to save himself, was hurried over the precipice, and startled his congregation with the announcement, "The concluding hymn will be 'Kinkering Congs,' 'Kinkering Congs.' After that experience he was in a position to fully sympathize with his brother clergyman who, in place of saying "Behold the fig-tree how it withereth away," asked his bewildered audience to "Behold the whig-tree how it withereth away."

In similar case did the preacher find himself who, describing conscience, and desiring to get his listeners to recognize the promptings of its inward voice in the half-formed wishes of the mind, appealed to them whether there was one present who some time or another "had not felt within him the effect of a half-warmed fish."

Diamond-proof Glass.

Glassmakers have been trying for years to produce glass which cannot be cut with a diamond without the application of power greater than can be applied by hand. Patents have just been applied for in several European countries which seem to indicate that the so-called long-felt want has been supplied at last. It is claimed for the new glass that only a best diamond will mark it, and that it is impossible to cut it without machinery or break it without a hammer. The thin quality of glass used for the windows of private houses offers no resistance whatever to the housebreaker, who can cut it with a diamond and lift a piece out without making any noise at all. If the new glass ever comes into general use the burglar will have to commence learning his business again from the very rudiments of it.

The whole amount of gold produced in the United States, from 1792 to the end of 1890, is given as \$1,871,706,769, or a larger amount than the aggregate of all forms of money, paper, gold or silver, now circulating in the United States.

A "moth insurance company" is the latest thing in the summer storage business.

MAKING A BOOK.

USINGS OVER THE EVOLUTION OF A CHILD OF THE BRAIN.

Tracing the Development of a Book From the Birth of the Thought in the Author's Mind Until It Reaches the Reader.

I have somewhere read a bachelor's reflections on a cup of tea while he watched the amber stream filling up the pearly china; its aroma volatilized his brain into a nebulous state of grateful comfort, and sent his thoughts wandering in thankful recognition of all who had contributed to the present enjoyment. His waitress, the cook, the stores, the merchant in turn received acknowledgements for time, labor, organization, and capital employed, in harboring and distributing it in this country. He then traced it across the ocean to the land of the Heathen Chinee, and owned his indebtedness to the marvelous equipment, machinery and appliances of the stately ships engaged in its transmission. He gives a passing tribute to the merchant at the exporting town, to the means of transit from the interior, and dwells with lingering gratitude on the yellow fingers of the Chinese that picked the tender shoots and dried the leaves for him. Leaning back in his chair, he complacently smiles at the wonderful combination of interest and labor that has produced his cup of tea, and he gave thanks that he was not as the rest of men indifferent, forgetful, ungrateful.

Our thoughts have wandered from the book in our hand to reflect on the more wonderful combination that has been at work in the making of the book. The cup of tea is the result of the series of mechanical, commercial, impersonal agents; the book is all this and more, it is the commune of intellect with intellect. Here is a man whom I have never seen, whom I do not know, who may be in Australia, anywhere, who may have crumbled into dust ages ago, yet who is speaking to me from the pages of the book. He makes me agree with him, admire him, angry with him, laugh with him or at him, and he is quite unconscious that such a being as I ever existed. He has somehow crystallized his thoughts, his emotions, his feelings into my mind. People are amazed at the phonograph, but is it more wonderful than a book? Take old Cicero, who in ordinary business pockets his retaining fee to defend Milo, and carefully prepares his speech, or who takes a fancy to write on old age or oratory. Can any stretch of imagination form an idea of the influence of the thoughts in these books? Think of the number of readers alone, the wide dissemination, the thoughts, feelings, and emotions that they have evoked, from the school boy who sullenly looks curses at the tormenting pages, to the student who lovingly commits them to memory to catch the style. The ashes of Cicero were scattered to the winds two thousand years ago, not a vestige of him remains, yet his mind still acts on the living minds through the medium of a book.

A book now-a-days is treated as a cup of tea, as a matter of course, a part of the daily fare, it is taken with zest, or dallied with, or left scarcely tasted. Some are exhilarated by it, others look upon it with supercilious disdain, all class it among the commonest articles of daily use. Yet how much is implied in the making of a book? Lounging before my fire and passively allowing my thoughts to drift upwards from the open pages of a history, a journey, a novel, or a science treatise, like my bachelor friend I pause to reflect on the number of agents, intellectual, moral and mechanical, that have combined to place the book in my hands. I speculate on what induced the author to write, how he became competent; how the thoughts developed, how the book and the language grew, how he slaved at his manuscript, and after it passed from his hands how the thoughts were materialized for public use. While the thoughts were being welded into coherence in the brain of the author, my fancy visits far distant places where bales of rags are being torn to shreds and pulped for the paper, where metal is being lifted from its primeval home to be fashioned into type, where the huge restless machine is waiting until deft fingers can arrange the fonts so that with giant force it may crush the thoughts indelibly into paper. I recognize the multitude of agents and circumstances that intervene before the author can speak to me from his book, and I blush to be like the rest of men—indifferent, forgetful, ungrateful.

Erudite the author can commence his book he must have acquired the capacity which comes only from long previous training. A cynical friend estimates that not one in a thousand is competent to write a book, and of these only one in a hundred could write what is worth reading. It may be over or understated, but it illustrates the small proportion of those who are prepared to provide for my literary enjoyment. The book commenced in the author's boyhood when he grew into methods of thought and expression, it developed with his opening mind when he began to use his mental implements, it was modified by the numberless men and things that crossed his path in life. It gathered strength from his experience, his storage of facts, his feelings and convictions, and through long years the book was suspended nebulously in his brain waiting for some motive, some inducement to precipitate it on paper. I shall never discover how much I am indebted to the ideas, the reading, the circumstances, the persons that have combined to collect in the brain of the author the thoughts that are the mainsprings of his book. When the ideas were clothed with words to what do I owe the author's graceful diction? Those happy images and pregnant phrases did not come by inspiration, no one is born with a silver pen in his hand, but they imply assiduous study and practice, failure and renewed attempts.

Granting the capacity, what induced the author to commit himself to a book? It may have been sordid lucre for which the creature of his brain have been or the res angusta domi that has sighed for yellow guineas in exchange for gold on thoughts. Few more touching episodes occur in literature than the struggles of Dr. Johnson to write his charming

history of Rasselas by the corpse of his mother in order to obtain money to bury her. The motive may have been the pleasure of writing and communicating ideas, it may have been sheer vanity or love of renown, it may have been the itching of the fingers that keeps the pen constantly in motion, a literary St. Vitus' dance, or the author may have had a message to deliver to the race which, germinating for years, grows up into a book of the century. Whatever the inducement, good, bad, or indifferent, I acknowledge my obligations to the persons or circumstances that have persuaded the author of my book to lift up the curtain and lay bare his mind to the world.

The determination once made to launch into print is but the commencement of the actual making of the book. The raw material has to be pieced together, and supplemented and ornamented. I am indebted to the author for his tenacity to his purpose, for his sacrifice of time and ease, for his research into authorities that have helped him to formulate his ideas for my enjoyment. I am grateful to him for his preserving pluck in undertaking the mere manual labor. If you have ever copied two pages of print consider what is involved in the mere transcription of five hundred. I thank him for his courage in overcoming these difficulties, for his patient endurance of weariness at his desk, and of the dull heaviness following on long occupation; for his perseverance when thoughts jib, and words will not run smoothly; for the worry from interruptions and annoyances just when the mind is willing and the pen active; for the pains bestowed over style and expression; and for his consideration in sacrificing much that would be uninteresting and tedious to me. As I glide on through page after page of the book I cannot estimate the labor and the trouble that it has cost the author. The sentences that run so glibly may have been corrected and revised and re-corrected, and perhaps pages have been the third or fourth attempt to remodel the ideas to satisfy the writer. Throughout the whole period of execution my unseen and unknown friend has for months been toiling for me, and perhaps centuries ago.

When the author has completed his manuscript a battalion of workers are ready to help in reproducing it in type. Paper makers, type foundry, engineers of every description prepare the material and the press—all the modern inventions and appliances are in some way sub-servient to the production, compositors, printers, readers, and the ramifications of press labor join in turning out the sheets. Bookbinders clothe it in its external dress, publishers store it, booksellers distribute it, and after this multiplicity of agents and labor the book is delivered into my hands at a cost of five shillings, less discount. A merely superficial survey shows me the number of hands on which I am dependent for my book, and if I dive beneath the surface into the hosts of those who indirectly aid in the making of the book, I am bewildered by their diversity. My books give me valued enjoyment, simple in itself, and I seldom think of the variety and multitude of agents that contribute to my pleasure. I am not ungrateful to them, but most of all I owe my acknowledgements to the unknown absent author with whom I commune, and who from the pages speaks to me, enlightens me, influences me, and amuses me.

Defence of the Peacock.

"Who says the peacock has ugly feet?" remarked Taxidermist Wood of the Smithsonian Institution to a Star reporter. "I have heard and read that piece of nonsense ever since I was a child, and I understand that it is recorded as an ornithological truth in classical Greek and Latin. You will come across mention of it even in fables. To my mind it affords an illustration of the fact that most people never use their own physical senses actively, but depend for their notions of life and things upon the observation of others."

"I have just finished mounting this pair of peacocks. Isn't the male bird a beauty? You can see for yourself that his feet are decidedly pretty, well shaped and rather small in proportion to his size. They are very slightly bigger than those of a turkey and are decidedly handsomer. The same can be said of the hen bird, unattractive though the latter is as to other points. Wherever in the feathered kingdom the cock bird is the handsomer he does the courting, while in the comparatively unusual case where the female is more gorgeous she it is that takes the initiative in the love-making."

"It is a curious thing to observe that the male peacock in courting his chosen mate approaches her not with the brightly colored face of his feathery fan toward her, but backward. Then, on coming close, he wheels suddenly about, with every plume trembling in the sunlight, and dazzles her all at once with his beauty. As for the popular misconception respecting his feet, there can be no doubt as to how it originated. When the peacock is pointed at, being naturally a wild bird, he is apt to drop his fan and scuttle away. Thus the impression was conveyed to the ignorant that he imagined his feet to be objects of attention, and accordingly sought to hide them. Of course, nothing could be more absurd."

—Washington Star.

Daily Life of France's President.

President Carnot leads a very busy life, and his long day, from 9 till 1 A. M., is crowded with work. Immediately after rising he takes a cup of tea, after which he receives his ministers, reads his dispatches and sees visitors; he then breakfasts. The afternoon is taken up with various duties and such exercise as he can find time to take. At 5 he again receives visitors and examines and signs decrees. He dines with his wife and son at 7 o'clock, which is his only part of the day which he feels at liberty to devote to his family. At 9 o'clock he goes to his study, where he reads or writes till 1. He is fond of both the opera and the drama, and is a fair painter, delighting to go down to the Forest of Fontainebleau and sketch for an hour or so. His sons have been brought up to callings in which they can support themselves. He dislikes cats, dogs, and birds. —Public Opinion.

POISON OF REPTILES.

How the Venom of Snakes Affects the Person who is Bitten.

"It is an old notion," said Superintendent Brown of the Philadelphia Zoo to a correspondent, "that the bite of a snake is much more deadly when it is holding its skin than at any other time. It was supposed that there was some mysterious connection between this process and the virulence of the poison. The secret is this: When a snake is shedding it is blind for two or three days, owing to the skin of the head coming forward over the eyes. During this time it cannot strike its prey as it usually does, and, as a result, there is greater secretion of venom in the poison glands at the base of its fangs and the victim of the attack receives a larger dose than he probably would at any other time."

"Whisky is an antidote for snake poison, is it not?"

"No, sir. It is a popular fancy, but not a fact," said Mr. Brown. "Whisky is what might be called a bridge used to carry the victim over the dangerous period. The general effect of snake poison is that of a powerful depressor of the nervous system, with reflex action on the heart and respiratory organs. Alcoholic liquor has a contrary effect, and while the poison carries the vital energy below the normal, alcohol brings it back. Too much whisky, as a large number of persons well know the morning after, has a depressing effect, and if an overdose be administered the result will be to aggravate and intensify the original trouble. The great danger in the use of whisky in snake bites lies in carrying its effects beyond the stimulating and exciting stage. Quite a number of remedies have been suggested in such emergencies, among them being the hypodermic injection of ammonia, permanganate of potash, and jaborandi. Personally I know nothing of the efficacy of these drugs. While I have been frequently bitten by non-venomous reptiles, I have never felt the fangs of a venomous snake."

"Thus far there has been no antidote discovered for the toxicological effect of reptile venom. Dr. Stradling did a great deal of experimenting with snake poison and claimed to have discovered an antidote. To demonstrate the efficacy of his discovery he allowed himself to be bitten on several occasions, after he had prepared himself, with no serious results. I presume he would have carried his investigation to a successful issue, or ended in killing himself, had he not got married. His wife refused to let him continue his experiments, and so he abandoned his researches."

"That there is an antidote for the bite of the most venomous snake there is no doubt. It is possessed by some of the aboriginal people of South America, Africa and portions of the United States. The Zuni Indians of Arizona hold an annual snake dance, at which they not only handle the most poisonous snakes, but hold them in their teeth during a frenzy of excitement. They prepare for this horrible festival by taking an antidote, or rubbing themselves with some vegetable compound. I do not think that there has been a single death among the Zunis recorded from a snake bite during one of these dances. Surgeons in the United States army have endeavored to obtain their secret, but without avail."

"How do you extract the venom of a snake for examination or experiments?" asked Superintendent Brown's visitor.

Keeper Johnson in the reptile house is quite an expert at that kind of work," answered Mr. Brown. "He has a pole about six feet long, with a broad strap passing over one end and through a staple on the other side, and running the full length of the stick. The strap forms a loop, which is passed over the head of the snake and drawn tight. The snake is held firmly by this apparatus until the keeper can reach down and catch him behind the head with his left thumb and forefinger. A slight pressure forces the mouth open, and then a small porcelain cup is pressed against the roof of the reptile's mouth contracting the glands and forcing the venom to run down the grooved fangs. When a rattler's mouth is closed its poison fangs lie up against the upper jawbone. By a wonderfully delicate bit of nature's mechanism, when the mouth is opened the fangs are forced down into an erect position, the action at the same time contracting the poison glands and forcing the secretions to flow the instant the reptile strikes at his prey."

"A peculiarity about venomous snakes," said the keeper, "is their manner of taking food; a rattlesnake or a copperhead will strike its prey, then coil up and wait for it to die. Before commencing to swallow it will watch it intently for the slightest movement. They swallow it head first, and if there is the slightest muscular movement observable they will disgorge at once. It is different with the moccasin. It will strike and hold onto its prey until it is dead."

"What is considered the most venomous snake known to zoologists?"

"It is difficult to say. There is a species of serpents found in the Straits of Malacca which is considered to be the most deadly in existence. They are known as hydrophids, and vary from eight to twelve feet in length. The cobra di capello of India is an exceedingly venomous snake, but I do not think that its bite is more deadly than that of our rattlesnake or copperhead. One reason why there are so many deaths in India from the bite of the cobra is because the natives are not only reckless, going about with bare feet and legs in the haunts of the reptile, and when once attacked very little if any treatment is given to counteract the effects of the poison. The whole question, however, is a relative one and depends upon the condition of the snake when it made the attack, where the victim was struck, and the subsequent treatment. If the poison fangs penetrate through a boot-leg or a portion of the clothing, so that the venom will be removed. If the fangs strike a portion of the body near which the circulation is active the result is usually a fatal termination. The bite of a large rattlesnake or copperhead is much more to be dreaded than that of a small one, for the larger the snake the larger the secretion of poison."

A fence 500 miles long of wire netting, separating the colonies of New South Wales and Queensland, is one of the wonders of Australia. It is designed to keep the rabbits out.