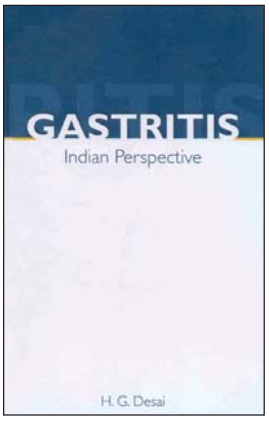
Book Reviews

Gastritis: Indian perspective. H. G. Desai. Vakils, Feffer and Simons, Mumbai, 2008. *81 pp, Rs 495.* ISBN 978–81–8462–009–2.



This book is a compilation of scores of articles and invited contributions by Professor H. G. Desai on the subject of gastritis over decades, along with a review of similar literature, allowing the construction of a different model for gastritis.

The world literature has seen several classifications of gastritis, almost all of them from western countries. The core of Professor Desai's message is that, in the process, attention has drifted away from a possible immunological basis for a subset of gastritis. His case is also that, when incriminating the organism in the aetiology of gastritis, researchers should consider the differences in behaviour of *Helicobacter pylori* in developing and developed countries.

The book begins with a definition of types of gastritis, and goes on to expand on acute and chronic gastritis. It is in a later chapter that Professor Desai makes his case for the classification of chronic gastritis based on immunological parameters (intrinsic factor and parietal cell antibodies), as first proposed by him in 1973. The present modification suggested by him incorporates *H. pylori* into the diagnostic algorithm before finalizing the diagnosis based on the antibodies.

Three chapters deal with *H. pylori* and other environmental and genetic factors (pernicious anaemia). This is followed by a chapter on clinical correlates (symptoms and complications), where the focus is more on *H. pylori* than on gastritis. The next 2 chapters deal with investigation of gastritis, and on treatment and prevention—where again the focus is on *H. pylori*.

The final chapter on future progress reads sadly like what should have been done in the years when interest in gastritis was at its peak. Professor Desai makes a case for testing for intrinsic factor and parietal cell antibodies, acid output (histamine-augmented), serum pepsinogen, Schilling test and the like, in patients and their first-degree relatives. Other areas for research (*H. pylori* again) are summarized in a page.

This concise book is a good reference for clinicians who have an interest in the subject. Unfortunately, their number is dwindling, and I suspect that is because the easy availability of potent treatment modalities has made acid peptic disease (gastritis or no gastritis) a bit player. Despite the introduction of several classifications of gastritis over the years, the average clinician–endoscopist makes little attempt to use any of them in daily practice. Professor Desai laments in the Preface to the book that 'research workers working in the laboratories will be disappointed with its contents'. That is not true—they are the ones who should pore over these contents—but this breed too is dwindling.

Overall, I would rate this as an excellent compilation based on a line of thinking about gastritis that has been neglected for several decades, probably because of its predominantly tropical relevance, while the world followed the western approach and narrowed its attention to *H. pylori* infection and its consequence. The book is a tribute to scientists like Professor Desai who single-mindedly fought lonely battles against a majority who drifted with the stream.

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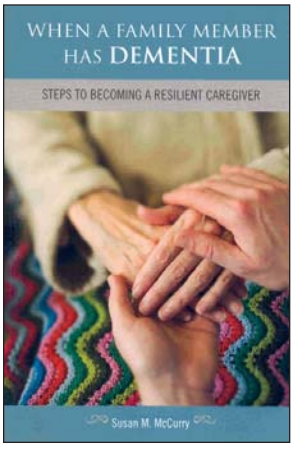
When a Family Member has Dementia: Steps to becoming a resilient caregiver. Susan M. McCurry. Byword Books, Delhi, 2006. *166 pp. Rs 375.* ISBN 978–81–8193–040–8.



Mrs TH was a simple, god-fearing Sindhi woman in her mid-seventies, widowed 2 years before I saw her. Over the next couple of years SH, her son who was an executive with a multinational company grew increasingly concerned about her ability to live alone. He finally managed to convince her to come and stay for a trial period with his family in their spacious apartment in suburban Mumbai. The next morning his wife found a strong faecal stench in the living room next to the old lady's bedroom door and located faeces apparently smeared on the wall behind a small table there. Her mother-in-law denied any knowledge but helped clean it up and it was blamed on a neighbourhood cat. One day later, at 5 a.m. SH heard her stumbling around the living room. When he put the lights on he found her squatting on the floor. She hurriedly got up to complain that they had forgotten to instal a tap in the toilet! When I examined her later that day, she had obvious dementia, presumably Alzheimer. A week later I had a longer discussion with SH, his wife and his sister with the investigation results and I emailed them literature on dementia. With medication and affectionate support from her daughter-in-law Mrs TH settled into her new home. I saw her son and his wife twice after that at a support group meeting for caregivers that I was hosting at a Mumbai Hospital. Unfortunately, the support group did not survive much longer and I lost touch with the family.

Indian caregivers for patients with Alzheimer have no access to institutional support—private or public. Support groups exist patchily but are a poor substitute for facilities for daycare or nursing homes for terminal stay. At best they serve as a forum for education and some companionship in a shared journey. In practice one soon

realizes that the basic resource still remains the family and the home. But few caregivers would want to ask about embarrassing issues that crop up daily and few neurologists/psychiatrists, however well informed would have the time to answer. Does this book then provide solutions for the caregiver pitchforked into a responsibility that no one asks for? Is this book a substitute for the absence of a local support group? Would I write the name of the book and suggest a distributor on the back of my prescription for a cholinesterase inhibitor? The answer is yes to all those questions. At Rs 375 it is less than one-sixth of the price of a month's supply of branded rivastigmine. It is a lively and easy read but nevertheless obviously a heartfelt effort. Reading it was an education for me.

Nevertheless this is a book written by an American psychologist for her patients' caregivers. The short case vignettes deal with situations from life in a developed country. How then does this translate into something universal that my patients' families can use? McCurry begins by acknowledging the caregiver's burden. She discusses the psychological importance of resilience and emotional stamina as a skill that is usually innate but can also be learned. Cognitive empathy is the ability to subjectively feel another person's experience while yet maintaining objectivity and is as crucial (and perhaps more difficult) for doctors as it is for a caregiver. The alternatives of learned resignation and active resentment obviously have unpleasant consequences. Her core thesis is summarized in the acronym D.A.N.C.E. 'D' stands for 'Do not argue' and includes strategies for getting across to someone whose communication skills and ability to understand are obviously limited. For an angry outburst, the counterintuitive suggestion is 'Don't just do something, stand there', which is an excellent operational description of tolerance. 'A' is for acceptance not just of the disease but also of the limitations and responsibilities that come with the caregiver's role. In my experience, Indians have a fairly high tolerance for the infirmities of their elders and do not value personal independence as much as Americans do, which I guess does make this part easier for us. 'N' is for nurturing oneself, the caregiver by paying attention not just to health but also by seeking respite. She points out the usefulness of daycare and short respite centres which unfortunately do not exist in Mumbai. Many caregivers are reluctant to seek help from other members of their family for various reasons. An Indian would probably see rather more situations than the examples quoted. 'C' is for the use of creative problem solving using the 'ABC' approach. Behavioural issues have to be approached by gathering data on the antecedents (A) of that particular behaviour (B) and its (C) consequences. Being open about the patient's problem means that almost anyone who comes into contact with the patient can help with suggestions. 'E' is for enjoying the moment and it speaks of the minor moments of pleasure that we can all find in our daily lives. It also encompasses the importance of relationships and spirituality and a sense of gratitude.

What this book lacks (and I personally think this is a minor quibble) is a section on the medical aspects of Alzheimer: the pathogenesis, stages, medical treatment, research, etc. These too are important and my only assumption is that this is a considered exclusion by McCurry. Other sources such as the Alzheimer's Association website (*http://www.alz.org*) have more than enough detail. My own solution is to have a downloaded document (I have a brochure from MDConsult) on my desktop, ready to be emailed to anyone who asks for it and I usually encourage caregivers to read it before they meet me again.

The caregiver may be frustrated and confused but anybody who seeks a book like this is obviously someone who is willing to do her/his best for her/his patient. As physicians our primary responsibility is to the patient, but dementia forces us to acknowledge that our remit extends to the caregiver as well. We also need to remember, as McCurry points out in the foreword that behind every dementia diagnosis there still exists a real human being who is entitled to be treated with the dignity and respect that he or she has earned over a life time. A friend of mine takes care of his Alzheimer's afflicted mother who is now bedridden. As he put it 'She doesn't have to remember who I am. I remember who she still is: my mother'. McCurry gets that message across.

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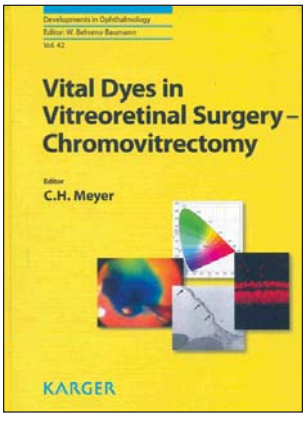
Vital Dyes in Vitreoretinal Surgery (Chromovitrectomy). C. H. Meyer. Karger, Basel, 2008. *164 pp, price not mentioned*. ISBN 978–3–8055–8551–4.



This book details numerous aspects of how vitrectomy procedures can be performed using dyes for identification of the vitreous–retina. The initial chapters dwell succinctly on the methods for imaging the vitreous, and the evolution and use of various 'vital dyes' for vitroretinal surgery. Three simple techniques to visualize the vitreous, namely autologous blood, triamcinolone and flourescein have been very well described.

Indocyanine green (ICG) dye has been reported in this book to be toxic to the retinal pigment epithelium (RPE) as already reported in many peer-reviewed articles, and the chapter on safety parameters for ICG reports reduced concentration of the dye, reduced contact time and hypo-osmolar concentration of the dye being less toxic. The book also mentions that in histology specimens it has been observed that after the use of ICG the internal limiting membrane (ILM) becomes stiff. This effect of ICG is due to its photosensitizing property leading to collagen cross-linking of the ILM.

Trypan blue has been described as a vital dye to stain the anterior capsule and epiretinal membranes. Trypan blue does not stain the ILM as effectively and is non-toxic at concentrations of 0.06%. However, higher concentrations may be toxic. The recent introduction of trityl dyes—patent blue V, crystal violet and brilliant blue, have added a new dimension to the use of non-toxic dyes in vitreous surgery. They have the advantage of dye injection in a fluid-filled eye, decreasing the contact time and concentration of the dye. Brilliant blue dye has a high affinity for the ILM. Trityl dyes seem to be safe for the RPE. Vital stains may also be used

to enhance the detection of breaks in the retina by injecting dye in the subretinal space and observing its exit from previously unseen breaks.

The author has discussed in detail all the pros and cons of vitreoretinal dyes. Experimental studies to determine their toxicity have been adequately dealt with. The last few chapters give an insight into novel, newer dyes for use, which are currently under evaluation as well as alternative enzymatic approaches to detach the vitreous from the retina.

The material is accurate and well organized, and its readership would include vitreoretinal surgeons already in practice or those wanting to acquire skills for performing 'chromovitrectomy' and those interested in doing research in this field.

In conclusion, the basic aims of the book have been met. The appearance of the book is impressive, the contributing authors are well known and the illustrations, tables, diagrams and typeface are legible. The book has also a presentable appearance, though its price has not been provided.

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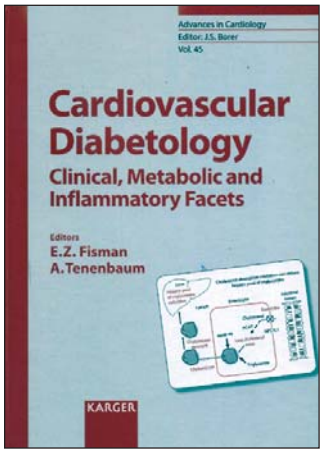
Cardiovascular Diabetology. Clinical, metabolic and inflammatory facets. E. Z. Fisman, A. Tenenbaum (eds). Karger, Basel, 2008. *174 pp, price not mentioned.* ISBN 978–3–8055–8427–2.



Are you a physician/cardiologist/diabetologist with a sense of ennui? Are you in search of a new, exciting and uncrowded niche specialty? Well, here is an option—Cardiovascular Diabetology. The preface of this collection of 9 reviews proclaims this 'new scientific discipline'. The reviews deal with the relationship between altered glucose metabolism (metabolic syndrome, impaired fasting glucose, impaired glucose tolerance and diabetes mellitus [mainly type 2]) and macrovascular disease. The 9 reviews start at the cellular level and go on to the tissue level (endothelium), progress through biomarkers, arterial compliance and finally into the clinical area. This I presume is what the editors describe as a crescendo-style arrangement.

The initial sections on more basic pathophysiology make for dense reading for a clinician like me. Fortunately, the diagrams are lucid and help make the text easier to understand for the non-expert. The discussion on advanced glycosylation end products (AGE) and their interaction with receptors (RAGE) provides an explanation for many of the pathophysiological effects of hyperglycaemia. The review on the endothelium also contains some fascinating nuggets. Did you know for example that the endothelium has a system called the junction-associated filament system in the intercellular space which by its contraction and relaxation controls the dimension of this space and hence the passage of solutes and macromolecules between blood and the subendothelial space. Another review, the one on biomarkers provides an interesting classification of interleukins—the good, the bad and the neutral. The good ones have an anti-inflammatory effect and hence could retard atherosclerosis—IL4, 10, 11, 12 and 13. The bad have a pro-inflammatory effect—IL1, 2, 6, 7, 8, 15, 17 and 18. While the aloof are neutral in this regard—IL5, 9, 14, 16 and 19–29.

On the other hand, I found the reviews on the clinical aspects unexciting with little new information that I could use at the bedside. The review on hypertension and diabetes does emphasize the dangerous duo: 'coexistence of diabetes and hypertension in the same patient is devastating to the cardiovascular system and blood pressure control in these patients is a great challenge, since the target blood pressure is lower and the response to treatment is poor.' The authors Grossman *et al*. recommend using verapamil or diltiazem rather than amlodipine among the calcium channel blockers. Some of the advice given on therapy tends to be anecdotal. For example, the chapter on 'Noninsulin antidiabetic treatment' by Professor Fisman and others makes a strong case against the use of metformin, which they feel is harmful to the cardiovascular system. Their recommendations are based on personal experience and explained by arguments that I feel are out of synch with clinical practice. They theorize that the gastrointestinal effects of metformin can lead to folate deficiency and thus to an increase in homocysteine levels and cardiovascular disease. They also warn against the 'lethal lactic acidosis' it may cause. Such advice flies in the face of guidelines advising that metformin be considered a tier 1 drug in type 2 diabetes mellitus[1] and the UK Prospective Diabetes Study (UKPDS) finding of reduction in macrovascular endpoints in the metformin arm.[2] One must at the same time agree with the statement: 'A common problem arises when a drug is known to give a prompt and beneficial effect in the short term, but data regarding long-term outcome and safety are either lacking or insufficient. This is particularly true regarding antihyperglycemic drugs in patients with coronary artery disease (CAD).' This has been well illustrated in the controversy about the glitazones[3] but I do not agree that it applies to a drug as hoary as metformin.

This book should have been of interest to physicians, diabetologists and cardiologists but its sections on clinical application are weak. The book is well produced. My copy had no indication of its price.

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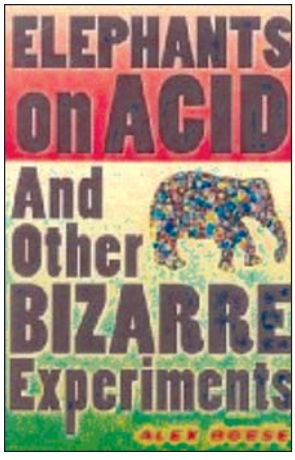
Elephants on Acid and Other Bizarre Experiments. Alex Boese. Harvest Books, Orlando, Florida, 2007. *304 pp, US$ 14.* ISBN 13: 978–0156031356.



'In the following pages you will encounter elephants on LSD, two-headed dogs, zombie kittens and racing cockroaches—to name just a few of the oddities that await you…' Who can resist an introduction such as this?

Mr Boese obtained his Master's degree in the history of science from the University of California in San Diego. His earlier investigations in his chosen field resulted in *The museum of hoaxes* and *Hippo eats dwarf*, this being his third book. He has set up a museum based on his first book in 1997, which attracts a large number of visitors.

Elephants on acid… had its origins in the unusual scientific experiments he unearthed during his literature searches as a graduate student. His interest aroused, he dug deeper and unearthed the accounts forming this book. He decided to include experiments that made him chuckle, grimace in disgust, roll his eyes or utter a shocked exclamation (which he does not reproduce here). The experiments forced him to wonder about those designing them. Were these minds twisted or brilliant? He has purposely stayed away from the atrocities by Nazi experimenters 'because I wanted to explore actual scientific research—not sadistic torture disguised as science'.

A wide spectrum is on offer.

The first chapter entitled—Frankenstein's Lab sets the pace. It starts with an episode that may have triggered off Luigi Galvani's experiments on electric stimulation of the nerves of dissected frogs and proceeds to attempts at activating entire corpses by electrical stimulation and determining how long heads decapitated by the guillotine retained consciousness. From such experiments it was a short step to transplanting heads in animals and, if rumour is to be believed, Dr Robert White's experiments in humans as well.

Subsequent chapters discuss, among other experiments, those on sensory perception (including the influence of suggestions on our appreciation of smells), sight and sound; the ability to recall (including an assessment of Wilder Penfield's widely quoted experiments on the brain in patients awake during surgery) and the legendary abilities of waitresses to remember the precise orders placed by each person (think of the crowds at Munich's Oktoberfest); sleep (including attempts at learning during sleep and how long one can stay awake without falling ill and, inevitably, dreams); experiments on animals (including the experiment where an animal in Oklahama was fed LSD to study effects of the drug); behaviour before and during mating (including the counting of pubic hair transferred from one partner to another during sex in order to design tests to be used in cases of rape); experiments on children and the study of why the average person can be made to show cruelty towards or even kill other persons.

I recommend an empty stomach when you start chapter eight—'Toilet reading'. Among other experiments it features the account of Dr Stubbins Ffirth (no, that is not a slip of the pen) who drank the vomitus of yellow fever victims to prove that it did not transmit the disease and where researchers were required to rate the odours of flatus collected from subjects fed beans the previous night.

Fittingly, the last chapter deals with experiments focused on the end—death. LSD is encountered here as well with an account of Aldous Huxley's use of this chemical as he lay dying. Attempts at measuring the soul by estimating the weight of the person before and immediately after death led one observer to conclude that the soul weighs three-fourths of an ounce.

Suffice it to say that you will find it difficult to stop reading any chapter till you have got to its very end. You may then wish to pause—as I did—and marvel or look up the references provided for further details. You could, of course, pass on to the next amazing 'research study'.

While each section in every chapter carries a reference (e.g. Exline, D. L., F. P. Smith, & S. G. Drexler (1998). "Frequency of pubic hair transfer during sexual intercourse." *Journal of Forensic Sciences* 43(3): 505-8), Boese also provides additional references at the end of the book for further study. The book lacks an alphabetical index.

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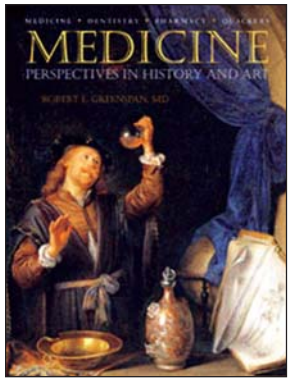
Medicine. Perspectives in history and art. Robert E. Greenspan. Ponteverde Press, Alexandria, USA, 2006. *596 pp, US$ 125.* ISBN 0–972448608.



This is a large, coffee-table book which is richly illustrated in colour and contains large amounts of interesting text. It is an unconventional, non-linear and quirky, but always spendidly engaging, approach to the history of medicine. The chapters in it are on anatomy, physical diagnosis, bleeding, general surgery, trauma surgery, obstetrics and gynaecology, urology, ophthalmology and otolaryngology, medicine, pharmacy, dentistry and quack medicine. The unusual approach means that a stalwart such as John Hunter gets mentioned in only one paragraph while the sixteenth century French philosopher–writer Michel Montaigne shows his disdain for doctors over two whole pages.

Some pictures are spread across two full pages (*see*, for instance, *The surgeon* by David Teniers the Younger, pp. 136–7, to get a flavour of the type of illustrations). Others include those of Perkins tractors (from 1796), the first dental chair in the world (from 1790), one of Laennec's first stethoscopes from 1816, artificial eyes from the nineteenth century, uroscopy flasks and coca cola dispensers. There are two pages of facsimiles of tobacco advertisements, with doctors recommending specific cigarettes—from the pages of *JAMA*! This, of course, is from the 1930s to

1947. Also seen is an advertisement which is clearly from the bygone days of the pre-HIV/AIDS era, from as recent a time as 1980—for a buffered antacid called AIDS!

What makes the book even more fascinating are the numerous anecdotes in it—material which, if used appropriately, can liven up potentially boring lectures in medical school or elsewhere. The origin of the children's nursery rhyme which begins 'Ring-a-Ring o' roses', is, in fact, a reference to the plague epidemic of 1347 in London. The insanity plea as a defence for murder was first used by Daniel Sickles, when he shot and killed Philip Barton Key for having an affair with his wife, and later attributed his act to temporary insanity. He won the case and, much later, reached the rank of Major General. We learn that 75% of all surgery done in the civil war were amputations and that Alexander Graham Bell unsuccessfully tried to use his new invention, the telephone, in 1881, to locate the bullet in the body of President James Garfield, after an assassination attempt (a successful attempt, unfortunately, as it turned out). As interesting is the fact that the president's doctors botched up all attempts to cure their patient by using dirty hands to explore the bullet wound (at a time that Listerism was well accepted in Europe), infected the president further and ultimately killed him. Dr Willard Bliss, the president's physician was accused of malpractice, and the assassin, Charles Guiteau, used this as defence (unsuccessfully, this time!), saying: 'Your honor, I admit to the shooting of the President, but not the killing.'

The beginning of the French contribution to surgery and medicine is linked to the political patronage that Charles Francois Felix attained in 1686, in addition to 300 000 livres and an estate, after he operated on Emperor Louis XIV for a fistula-in-ano. On an entirely different level of French contributions to medicine is the story of a female urinal named *bordeloue* after Louis Bordeloue, a Jesuit priest whose sermons were so popular that women in church passed around a urinal (*see* picture on p. 277 of the book) and used it rather than miss part of the sermon.

The text contains many original quotes from people I was unaware of, as from the usual suspects—Oliver Wendell Holmes, William Osler, Shakespeare, Susruta-samhita, etc. James Simpson responds to religious objections to the use of chloroform during delivery in 1847 in *Answer to the religious objections against the employment of anesthetic agents in midwifery and surgery* while Hermann Boerrhaave's aphorisms on foetal death, urinary tract stones, amputation and pneumonia can also be read with pleasure.

The similarity or continuity with yesterday's thinking is obvious with the reference to uroscopy (seen today in the form of a routine urine examination) and in physiognomy, with the belief that people often resemble their pets. Change, on the other hand, is evident, through much of the book.

Perhaps the best of all chapters is the one on quack medicine. That pre-modern medicine was not far removed from quackery is well known to us today. Even so, it makes for sad reading to read about utterly shameless, dishonest and stupid practices and machines such as therapeutic radium inhalers, electric steam cabinet, Abrams dynamizer and reflexophone, goat gonad transplants, spermatorrhoea rings, splenic douches, hydroelectric corsets and mesmerism—most of which were from the twentieth century. Further proof of bad medicine is evident in other chapters, when we learn that the world of music suffered because of medicine—Johann Sebastein Bach died while Handel became blind after medical misadventures. Music, incidentally, has clearly had other associations with medicine—it seems that Leopold Auenbrugger, who discovered percussion, achieved fame with an operatta that he wrote, while the charlatan Mesmer was a patron of Wolfgang Amadeus Mozart and was acknowledged by being represented in the first act of Mozart's opera *Cosi Fan Tutti*.

Perhaps the only errors that I was able to detect in this marvelous book were three typos—all, for some reason, related to the spelling of Ignaz Semmelweis. It is spelled Ignes Simmelweiss three times in the preface and again on page 372, Ignas Semmelweis on page 370 and Semmwelweis on page 373. The index, also, is woefully inadequate, for a book that packs in so many people and so many facts.

The most incredible thing about the book, though, is the fact that this tome is the author's first book!

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