

35 CENTS

POPULAR MECHANICS MAGAZINE

WHITTEN SO YOU CAN UNDERSTAND IT

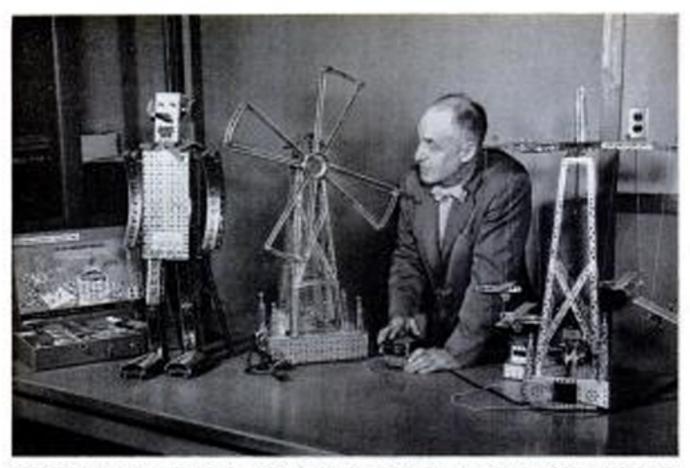
HELICOPTER TUGpage 110

FORTUNES FROM IDEAS

What the Owners Say About the NASH

For the Craftsman

Christmas Toys You Can Make



A. C. Dilbert became a milionaire by scaling construction girders down to a size that children could handle

FORTUNES in Toy Ideas

By Melvin H. Williams

WHERE DO TOY IDEAS come from?"
Believe it or not, children usually invent the toy and parents perfect it. Housewives, office workers, teachers, hospital technicians, carpenters or businessmen are the toy designers of today. Some have made fortunes by developing good ideas they have found watching children "at work."

Almost anyone can come up with a new

Almost anyone can come up with a new toy, as you'll see from the following examples. Each was successful in bringing fame and fortune to some person. Toys come and go like Christmas snows. Only one in a thousand becomes a best seller. But perhaps somewhere in these examples you can find the inspiration for a million-dollar idea of your own.

Some people spend a lifetime dreaming up new stunts to delight America's 45,000,-000 children. In spite of this, there is a re-



Semetimes two men hit on the same idea almost simultaneously. These plastic blocks fit tegether with snaps. Another firm makes a similar set from wood



Sometimes two or three inventors working independently on a similar idea find that, by collaborating, their parts fit togeth-

er into a solid toy hit.

In 1949 Albert Weinstein, a professional inventor from Alexandria, Va., got an idea for a remote-controlled toy car. He steered it with an air-pressure bulb, but had no idea how to power it. So he contacted a friend, Louis Van Order of Verona, N. J., executive of a firm that made a tiny electric motor powered by flashlight batteries. Between them they designed Weinstein's autoso that it could be electrically operated by the flashlight-powered motor, controlled by a switch on the end of a wire. At that time the Aluminum Model Toy Company of Birmingham, Mich., was planning to make a plastic scale model of a new car. Frank McGinnis, an executive of the carmanufacturer, brought the three parties together and the original remote-controlled car was born. The auto, which can back up. go forward, race in circles and be ma-

neuvered into the most intricate spaces by an operator 10 feet away, was an immediate sensation.

Father's doodles of future

car inspired this new toy

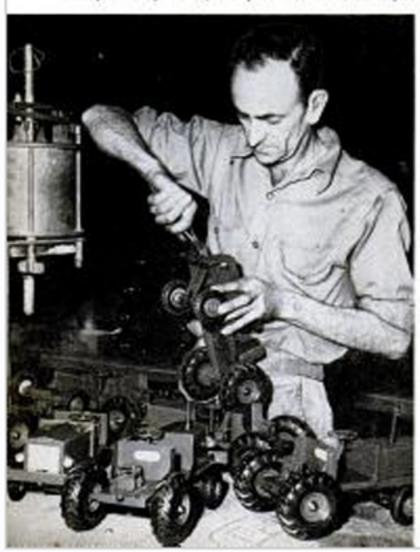
Designers often start something that just doesn't work out. If they're quick-thinking, they can turn their impractical "dream" into a profitable sale.

Elliot Handler, one of the country's most famous designers of children's music boxes, used to sketch ideas for "dream cars," just for fun. They were always far ahead of their time.

One day his 10-year-old son, Kenneth, found one of the drawings and asked his father to build him a streamlined car just like that. Flattered by his son's approval, Handler went ahead and built a toy car embodying his designs. The car was an instant hit with Kenneth and every other kid on



Eight years ago the Daepke brothers were repairing an old toy fire engine as a Christmas gift. Why not make better ones of sheel? Today 270,000 trucks and machines roll out of their factory assuably. Below, stordy vehicles are exact capies



the block. So Handler, who was associated with Mattel, Inc., a Los Angeles toy firm, turned over his designs and model to the company. The firm is now producing 60,000 friction motor cars a day.

Most people in the toy business know they'll get good ideas if they study the simple things that children themselves invent to mimic

adults.

For example, in late 1950 a toy manufacturer named Herman Kesler of the American Metal Specialties Corporation of Hatboro, Pa., was sitting in his kitchen lamenting the fact that another year would soon be upon him and he couldn't envision a single idea for a new toy. He watched idly as his children helped the maid with the dishwashing, using fearning suds, scouring pads, dish rack and a dish towel. Suddenly an idea clicked. From time immemorial, little girls have had tea dishes to play with and yet no one had ever given them their own dishwashing equipment. And what little girl doesn't like to play with sudsy water?

Thus was born one of the most popular girl's toys—the Doll-E-Do Dish, so obvious it defies inventiveness. It is simply a toy dishpan, dishrack, sink strainer, apron and dishmop, with real samples of brand name cleaning aids. Today, only a few years later, Kesler's firm has grossed over \$10,000,000 from just such simple ideas as this dishwash-

ing kit.

A parent may invent a toy to meet the therapeutic needs of a sick child. It's strange but true that Vernon G. Eisel was literally forced to invent the Cradle Gym, one of the world's

best-known infant toys.

In June, 1940, one of Eisel's twin infant daughters became paralyzed in her neck. Doctors agreed that manipulation of her neck muscles was necessary in order to strengthen them. To do it by hand was futile. The exercise had to be constant, which meant the infant would have to do it voluntarily.

Eisel had an idea. He threaded a lightweight steel chain through a rubber tube to which he attached two brightly colored handles and a cluster of tinkling bells. Then he strung the contraption across his daughter's crib. While he watched anxiously, she seized one of the colored handles. This caused the bells to jingle and slowly her head turned toward the sound. The infant reached for another colored handle. Again a tinkle. Within 15 minutes she was straining her neck muscles actively in order to survey the whole gadget, and in less than two months the muscle damage had been repaired and the infant could turn her head normally. Eisel sold his device to a leading toy concern and just a few months ago received a check for his 100,000th royalty dollar. His Cradle Gym has now been used by more than 5,000,000 babies.

People who can't afford the real thing often design a new less expensive toy simply by improvising on the original. In March, 1952, John L. Joseph, a refrigerator-parts salesman, was watching his two preschool daughters fighting over some hollow wooden building blocks that had been given to them. There weren't enough to build their mutual houses, trains or boats. Joseph tried to buy more, but was astound-

Back in 1902 a carteen showing President Teddy Roosevelt and a bear cub inspired a taymaker to bring out a stuffed bear. Hour's the first Teddy how ever made, still popular with Roosevelt's great grandshildren

ed to find they cost up to \$5 per block. He tried building suitable giant blocks out of wood. That was too expensive. He tried plastic. The cost of the dies ruled plastic out. For months he tinkered with the idea. All he wanted was a plain hollow block, no bigger than the cardboard carton his refrigerator parts came in. He jumped at the thought. Cardboard blocks. He took a heavy grade of corrugated kraft stock and finished it with a colored waxed surface. Then he reinforced the interior of each block with an egg-crate-type partition. This made the block so strong it would stand up under 500 pounds of dead weight. He could manufacture this block for a fraction of the cost of a wooden block, so he decided to become a toy manufacturer. His simple improvisation is a growing success and his firm is just completing its first year in the toy field with a handsome profit for its industrious founder.

Many successful toys are invented by utilizing some current news event or tying in a toy with a popular celebrity. Mickey Mouse, Howdy Doody and Hopalong Cassidy have made small fortunes for manufacturers of toys. But it is only the keen-eyed toy designer who catches the popularity on its upswing or gets





"Strky" call actually walked into semeene's life. When an engineer was working with long springs, one of there was juried lasse and strutted down a pile of books. Buyers thought the idea crasy. Kids didn't



Some toys are less expensive adaptations of older toys. Big building blocks made of corrugated paper-board, reinforced with inner "egg crate," will hold 500 pounds. Below, "Why didn't I think of that?" Successful new toy is dishwashing equipment, sample size



the complete benefit of a celebrity tie-in.

On November 16, 1902, a newspaper car-toon appeared in The Washington Post showing President Theodore Roosevelt standing belligerently over a scrawny cub bear that had been dragged into his hunting camp by his guides. The cartoon became an immediate sensation. In Congress, in newspapers and in the street, people were discussing the incident of "Teddy's bear." To children, the term Teddy bear had a certain charm and they began asking for their own Teddy bear. To an enterprising New Yorker named Morris Michtom, this was the opportunity of a lifetime. He wrote to Roosevelt and asked the President for permission to use the name of "Teddy" on a line of toy stuffed bears. Roosevelt replied that he didn't know how much benefit his name would be in the toy business, but Michtom was welcome to use it.

In 1963, Michtom's first Teddy bear made its appearance and nearly 150 million of them have been made in the 50 years since then. By all estimates, it is the most popular toy in the world.

Plumbers, mechanics, curpenters and electricians may invent surprisingly successful toy tools just so their youngsters stay out of their own dangerous but intriguing tool kits.

Tom Grimes was in the basement workshop of his Chicago home in 1949 doing some needed repair work. His two-year-old son was also in the basement constantly reaching for a hammer, saw or screwdriver. As fast as Grimes retrieved one of the dangerous tools the boy would grab another. In desperation, Grimes made a small hammer out of a sanded piece of waste wood, drilled a hole in a board and let Junior bang round pieces of wood into the hole from one side and then from the other. The success of his idea delighted him as well as his son. The next day he made more tools out of wood. By week's end he had a whole workbench, accurate in scale, but complete with safe blunt wooden tools such as a hammer, screwdriver, wrench, vise and an assortment of wooden screws, nuts and bolts. Grimes took his idea to Playskool Manufacturing Company, educational toy firm, which tested his "workbench" in its clinics. The workbench, with a number of technical improvements, proved a big success in every test. Playskool has sold several hundred thousand of them in the past three years.

Every year, men looking for a profitable business to go into get ideas for toys and plunge in. When Fred Doepke came back from Army Air Corps service after World War II, he and his brother, Charles, an engineer, wanted a manufacturing busi-(Continued to page 270)

Fortunes in Toy Ideas

(Continued from page 92)

ness. They had a small machine shop in a suburb of Cincinnati. For months they pored through trade journals in search of possible products—something that could be stamped, pressed and embossed in metal. These were the only operations their machines could perform.

One bleak morning in early December, 1945, Charles was sitting disconsolately in his office. Christmas was just around the corner, but he couldn't get in the spirit of the season. Then Fred walked into the office with a wooden toy truck under his arm. It was an old fire truck he'd received when he was six years old.

"Thought I'd fix it up and give it to the kids at Christmas," he said to Charley. The two of them started to repair the toy, replacing a missing wheel, straightening the axle and brightening it up with a new coat of paint. Fred remarked that he could probably make even better fire trucks out of metal. The spark of his idea blazed the two brothers into action.

"Why not?" said Charley. "We could make model toys that wouldn't fall apart under the most savage treatment." They decided to manufacture scale models of real construction and fire-engine equipment. Despite the fact that they were making toys at a new high in selling price, from \$12 to \$20, their accurate, durable trucks and read-building equipment became a whooping success. Today 270,000 Doepke toy trucks and machines annually roll off the assembly line in their new manufacturing plant at Rossmoyne, Ohio. Manufacturers of real construction equipment are begging Doepke to make scale-model duplicates of their own brand-name trucks and machinery for two very good reasons: To promote good will among thousands of "tomorrow's" customers, and to be used as samples by their salesmen.

A few toys are invented by accident. One called "Slinky" actually walked right into someone's life. A 29-year-old engineer, Dick James, was employed by a Philadelphia shippard in 1943. He was trying to mount delicate marine torsion meters so they would be both free of the savage roll of a ship in heavy seas and protected from the recoil of heavy gunfire. One idea was

to suspend them on springs.

He tried hundreds of springs of different sizes and tensions, piled them on his deak when they didn't work. One day something jarred one coil loose and it commenced to strut down a pile of books like an animated accordion. As the top of the spring would

(Continued to page 272)

UNCLE WALTER



IT SMOKES SWEET





IT CAN'T BITE!

SIR WALTER RALEIGH'S BLEND OF CHOICE KENTUCKY BURLEYS IS EXTRA-AGED TO GUARD AGAINST TONGUE BITE, STAYS LIT TO THE LAST PUFF, AND NEVER LEAVES A SOGGY HEEL IN YOUR PIPE.



At costs
no more
to get!
the best!

Science Speeds Shaving With "Canned Lather"

That's right! They've invented a gadget that makes your shaving mug obsolete! Now you can get rich, creamy lather right out of a can. No brush, no gressy cream. Just push valve—out comes lather! New ARRO SHAVE contains 3 beard softeners, wilts toughest whiskers in hard or soft water. And built-in Lano-Lotion soothes your skin. Handy metal container has turret top, won't leak when you travel. Get an AERO SHAVE Lather Bomb. Only 50c.



arm House -



Here's how the Nightro€ works for you!

Every Marning, Automatically turns up heat before you awake, Lets you doesn in warm comfort.

Every Might, Automatically tarns heat down 6" to 10". Keeps horse cooler for greater comfort while you sleep. Saves up to \$40 on feel each year,

According to

lestell # yearself! plays directly into convenient electric mailet. Set back unit attaches directly into thermonas. Then see it and forget is

there is to it.
Approved by
U.L. as a safe
appliance for the bone.

	THE RESERVE ASSESSMENT AND ADDRESS.	 	
FRIENT FEBRURGELL	AND DESCRIPTION OF THE PERSON NAMED IN	-	-

PARAGON ELECTRIC (U., Dept. PMD0, Two Rivers, Wis-

- Please send me complete intermation on Paragon Night rol. Theore and he a Panagon Nighted, Environd in clock or money order for \$12.00.

reach a lower level, the bottom part would snap over its head like a tumbling acrobat and go down to the third level. James took the wire coil home for his children. The accidental plaything became a neighborhood craze. James began thinking seriously of marketing his toy but manufacturers told him he was crazy. "It's only an unpainted spring. You can't sell that as a toy." But James was too fascinated to give up. In the summer of 1945 he found a machine shop that would make the 21/2-inch stack of 98 coils. He ordered all he could pay for. Then he went through four weeks of arguing with store buyers to give him counter space. Finally one relented, and with James demonstrating his slinky traveler, the store sold 450 within one hour and a recordbreaking 20,000 before Christmas.

On James' desk in Clifton Heights, Pa., there's an annual pile of orders for more than 100,000 of these metal shavings. They come from all over the United States and from 20 foreign countries. After 10 years "Slinky" is still literally walking around the world.

Adult activities fascinate children, and more than one successful toy came from someone with an eye for simplifying something and putting it in a kit.

In 1912, A. C. Gilbert of New Haven, Conn., was an Olympic pole-vaulting champion three years out of Yale. One afternoon on his way to New York he watched workmen erecting steel towers and frames to support new power lines. He admired the way the girders could be used for so many different purposes. That night he designed some miniature girders out of cardboard and started building his own railroad, electric towers and bridges. But the cardboard wasn't durable enough, so Gilbert decided to make them out of steel. He got a local New Haven toolmaker to help. For some time he kept his hobby set to himself. When his company, the Mysto Manufacturing Company, needed another product besides magic sets to bolster lagging sales, Gilbert decided to give his steel girder construction set a fling as a toy. His toy is the world famous Erector set and three years after its birth it had notted Gilbert \$300,000. Today he is a millionaire.

In practically all the above examples of toy inventing, there is one underlying theme. The toys were imitations of something in adult life. There are thousands of dollars of unwanted "space" toys and nuclear-fission chemistry sets lying under counters today because some inventors were more "out of this world" than the toys. Fission to a child is something that should be done with a rod and reel. So, keep your idea simple, and good luck, * * *



NOVEMBER 1953 251