

"Inventor's Report" On Successful Farm Inventions

Do you have a "million dollar idea" just waiting for a market? If so, you probably have lots of unanswered questions.

What's the best way to test market your invention before investing huge sums of money to develop it? Should you patent it? Do you need a patent attorney or can you save money by patenting it yourself? Once protected, should you manufacture the item yourself or look for someone to do it for you? If you look for a manufacturer, how do you arrive at a fair royalty or licensing agreement? How can you be sure you're not dealing with shysters out to steal your good idea?

FARM SHOW contacted several hundred successful farm inventors of everything from shop tools to 4WD tractors. Their personal experiences answer many of these "inventor questions", providing useful "how to" hints for struggling inventors.

Adjustable Width Plow — Jon Kinzenbaw, founder and president of Kinze Manufacturing, Inc., Williamsburg, Iowa, says that it was the original success of his adjustable width plow which he sold to DMI, Inc., which led to his later success with his rear-folding planter toolbar and other inventions.

"I didn't have the money to protect the original plow patent properly. A close friend and farmer recommended that I take it to DMI Mfg., Goodfield, Ill. I was very fortunate at this point to work with an honest company. We used DMI's attorneys to patent the plow and they later became my own patent attorneys. The final success of the plow patent, since it was very complicated, came when I personally took a scale model to the Federal Patent Office, in Washington, D.C.

"Our problem in trying to bring the adjustable plow on the market was a lack of capital and company size. We resolved the problem with an exclusive licensing agreement to DMI for a percentage royalty, and again I felt fortunate to have the opportunity to work with an honest and fair company. I wouldn't change anything if given the chance.

"My advice to other inventors is to make your invention work. So many guys have their ideas on paper but the concept is not practical when built. Enthusiasm doesn't go very far if the product doesn't work. Once you've got it working, you can justify enthusiasm to a potential buyer."

Flail-Type Manure Spreader Keith Elwick, Vinton, Iowa, invented the flail-type manure spreader which handles liquid as well as solid manure, and also eliminated conveyor chains. "We worked with Deere and Co. to develop it. Deere's attorneys did all of the patent work and also acquired the rights to manufacture it. The Hawk Bilt Co. was formed following the patent work and manufactured the spreader for about 20 years, selling the spreader to Deere & Co., New Holland, Starline, as well as to Hawk Bilt dealers and distributors.

"The hardest part in getting the spreader on the market was setting up dealers and distributors, and proving the product. The spreader was licensed on a royalty basis. I suggest that farmer inventors first talk to an attorney to cover themselves and

then contact major manufacturers."

Speidel Canvas Wick Herbicide Applicator — "We wanted an applicator that was simpler, less expensive and better performing than others which were just beginning to come on the market" says Steve Speidel, Lincoln, Neb. "There was no thought of patenting or marketing this idea when the first one was made. We began to hear from neighbors and get inquiries from others who heard we had an applicator that worked well. Because of the interest, we decided to check into getting it patented.

"The biggest stumbling blocks to bringing the applicator on the market were: 1. A lack of experience in marketing, distribution, transportation, and so on. We tried to learn as we went along. 2. Getting the applicator manufactured to meet the greater-than-anticipated demand. The applicator is now manufactured by an outside firm on a contract basis. This frees us from having to provide the space and hire the necessary labor. We contacted several firms that could do the work and had them bid a price for making the applicators.

Dual Carburetor V-8 To V-4 System — Mike Brown, of Brown Carburetor Co., Draper, Utah, covered the development costs of his dual carburetor by giving "a piece of the action" to the skilled technical people who helped develop the new product for boosting gas mileage of big 8-cyl. cars.

"I paid everyone involved a royalty, including the draftsman, machinist, and so on. It took less than \$1,000 to build and perfect the unit, which is a precision-built carburetion system. A Ford 302 cu. in. V-8 engine recently got 37.7 mpg in independent tests at San Diego State University," says Brown, noting that "I never sell an invention because I've found I'm able to do everything myself." Brown markets his products through a series of catalogs, direct mail and advertising that he develops himself.

Skid Steer Loader — Louis Keller, Gwinner, N. Dak., along with his brother Cyril, invented the first skid steer loader, manufactured for the past 25 years as the Bobcat by the Melroe Division of Clark Equipment Co.

"We got the inspiration for the skid

steer loader when one of our machine shop customers needed a lightweight yet maneuverable machine to clean out the second story of a poultry barn. My brother and I sketched out a highly maneuverable and compact 3-wheeled machine with two drive wheels and a caster wheel. It did the job. Later, the machine developed into a 4-wheel drive unit.

"As soon as we had the loader perfected, we contacted a patent attorney and got a filing date established. The Melroe Manufacturing Co. heard about the loader and came to see it. They offered to take over manufacturing and marketing of the loader and asked my brother and I to come with it to make future improvements and to help with marketing.

"To perfect, patent and market a new product is a big job. By showing the Bobcat at fairs, farm shows, in magazine articles, and at conventions, we finally did succeed. The skid steer loader's biggest problem was that people didn't believe it would work. It looked too small for the job. To resolve the problem, we demonstrated it to individuals, con-

"Our biggest problem? It looked too small for the job."

tractors, fertilizer companies and others to show how much faster and easier it could do things.

"We licensed the rights to the skid steer loader to Melroe under a royalty agreement. The financial arrangements with a manufacturing company can be set at either a percentage of sales or a flat rate per unit sold. The going percentage rate is from 5 to 8% of the manufacturing cost of the item. We sold our invention on a royalty agreement of so much per unit.

Versatile Self-Propelled Swather — Peter Pakosh co-founded Versatile Farm Equipment Co., Winnipeg, Manitoba back in 1945. He says his design of a hydraulic transmission for self-propelled swathers was his most successful invention. It's still manufactured by Versatile today although Pakosh, and his partner Roy Robinson, have both sold their interests in the company.

"Most self-propelled swathers on the market at that time were steered by levers. Every time a slight turn was needed, the operator pulled a lever. This constant correction by levers caused tremendous operator fatigue. A better system was needed. My hydrostatic transmission design incorporated a steering wheel which, when turned to the right, would slow down the right wheel and speed up the left wheel. When turned to the left, the

opposite would occur. Versatile was the first self-propelled swather on the market with a steering wheel. It was a tremendous success because of operator comfort and safety.

"Our greatest asset was our ability to be innovative. It wasn't long before competition started to copy our design. Along with copying our design, they also copied our mistakes. Being innovative, we could make corrections quickly, which helped us to keep ahead of the competition. I left the patent with Versatile when I sold out in 1977."

Welder's Helper Orrin Klungtvad, Lanesboro, Minn., invented the Welder's Helper back in 1951 to help hold and position parts to be welded on a workbench.

"I licensed it to a manufacturer for 5 years for a royalty that amounted to 5% of the sales price. The problem with an agreement like this is that the company may choose not to make any effort to promote your product so, besides not getting any return on the idea, you lose those years of patent protection. Now, I sell it myself."

Bio-Mass Burners And Boilers — "Try to find out what the public thinks of the invention before spending a lot of money on a patent attorney," suggests Bill Fritz, Columbus, Neb., who's big bale bio-mass burner is being sold, under a royalty agreement, by a Nebraska manufacturer.

"I sketched the equipment and wrote down a description in front of two witnesses who understood the equipment. They dated and signed the document and I kept a copy. I then tested the market by having an open house to show it to the public. Then, I found a manufacturer and built units as we got sales orders.

Gjesdal Five-In-One Seed Cleaner — "I first wrote up a complete description of the invention and had it signed and dated by someone who understood it and then took it to a farm show," says Harvey Gjesdal, Birch Hills, Sask., whose simplified seed cleaning machine has caught on across Canada and the U.S.

"The machine seemed to market itself after first showing it at a large Western Canada farm show. A large grain handling company asked to sell the machine and Canada's largest grain cleaner manufacturer agreed to build the cleaner. I collect a fixed percentage royalty on each machine, based on the factory price. I'm very satisfied with the arrangement. My best advice is to show a new invention to as many people as possible and listen to their comments. You can't sell a new idea without showing it to people."

Sludge Buster — "We are marketing and manufacturing our liquid manure agitator ourselves," says David Primus, Mt. Auburn, Iowa. "We attend trade shows and advertise in national magazines both ag-