Fox Products Corporation - A Musical Miracle in Indiana's Farmland

An Honors Thesis (ID 499)

by

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It is hard to imagine that in the small Indiana town of South Whitley, some of the best musical instruments in the world are being manufactured. Fox Products Corporation, founded by an enterprising bassoonist, has consistently turned out high quality bassoons, contrabassoons, and oboes for many years. This paper will deal mainly with the production of bassoons.

The history of Fox Products is a fascinating one and it proves that American ingenuity can still produce quality products, no matter how unique or specialized they are. Fox Products was founded in 1949 by the late Hugo Fox. Born near South Whitley, his musical training began on the saxophone. Later, he switched to bassoon and studied with J. Walter Guetter, a prominent teacher at that time. During World War I, Hugo played in the Navy Band in the Great Lakes area. Later, he was transferred to Philadelphia to be shipped abroad. Fortunately, the war ended and he was able to continue his musical career. In 1922, Hugo became the principal bassoon of the world-renowned Chicago Symphony under the direction of Stock, and stayed until his retirement in 1949.

While playing in the orchestra, Hugo became increasingly dissatisfied with the German-made bassoon he played. By studying the measurements, acoustics, and designs of these instru-
ments, he began applying his knowledge to the manufacture of his own brand of bassoon.

In December, 1951, after many months of hard work, the first Fox bassoon became a reality. Hugo was quite pleased with the results, so much so, that he played his instrument "all the way along the winding lane to the (nearby) Fox residence." (Ft. Wayne Journal-Gazette, September 18, 1966) A dozen bassoons were sold that first year.

As the years progressed, Hugo's health deteriorated. Then, in 1962, he collapsed and was unable to oversee his budding corporation. At this time, his son, Alan, took some of the responsibilities. Although not a musician, Alan had spent many years as a youth listening to orchestras, which left him with "the knowledge of what a bassoon should sound like." (Chicago Tribune, February 27, 1975) Alan later graduated from Purdue with a degree in chemical engineering.

While working at Fox Products from 1962-1977, Alan dealt mainly with the bookkeeping and acoustical research aspects of the company. Upon the death of his father, he was in charge of the advertising, employee training, and planning of sales. A lot of experimentation occurred during these years, for there are 31,000 variables to consider, such as the type of wood, lacquer, and dimensions, when making bassoons. Problems were difficult to solve because Hugo had left no notes on his findings which made the trial and error process inevitable. However, Alan persisted through this difficult time, and the quality of the new Fox bassoons improved each year.
In the mid-1960's, Alan decided to add some new instruments to the list of goods. The production of contrabassoons began in 1964, followed by the oboe in 1965, and the clarinet in 1967. This expansion was due to the lack of American companies that could satisfy the needs of a professional player. (Ft. Wayne Journal-Gazette, December 17, 1973)

Up to the mid-70's, Fox Products was housed in various odd buildings. A barn was used for drying wood, and a converted chicken shed was the main building, as well as the place to test and tune new bassoons. The lacquer and finish was applied at Hank Hartley's auto body shop, and keys and pads were set at various other South Whitley households. (Chicago Tribune)

Then in September, 1974, disaster struck. On a cold Saturday, in the early hours of the morning, a fire broke out, completely engulfing the wooden chicken shed in flames. Five hours later, the fire was brought under control. All that was left of Fox Products was the charred remains of wood and machinery. Thought to have been caused by an ignited cloth saturated with linseed oil, the damage was estimated to have been between $150,000 and $200,000. The present building that houses the Corporation was financed, primarily with insurance money, and constructed three years later. Fox Products had a new home, and business continued as usual.

Throughout the 1970's and up to the present, Alan's instruments have become more and more well-known. Many top players in American, as well as European orchestras, are using
Fox bassoons regularly. Advertising, as in Hugo's years, relies heavily on word-of-mouth. Also, Alan is constantly traveling to such places as the International Double Reed Convention in Graz, Austria, the Glickman-Popkin Bassoon Camp, North Carolina, and various places across the country. Ads in music publications are quite common. Because of advertising, and the constant high-quality of the bassoons, Fox instruments are giving the German makers a run for the money.

Alan receives a lot of feedback from various sources. When touring, he brings along several bassoons of different models, such as student and professional, and invites musicians to play and comment on them. This is very important, for the bassoonist is the one who plays the bassoon, and if timbre, flexibility, or intonation is not up to par, Alan will hear about it. Conversely, many compliments are heard.

Along with the musician's perspective, Fox works closely with a master repairman of bassoons; James Laslie of Indianapolis. Friends for many years, Fox regards Laslie as "the best bassoon man in the world." The two men work closely together in the pursuit of the perfect bassoon.

Open communication between craftsperson and musician is essential in any business endeavor. Alan Fox has been able to be very willing and eager to please the most "picky" instrumentalist.

Fox Products is a relatively small corporation. Alan employs 48 people at his plant. Each worker has a highly specialized step to do in the making of an instrument, ranging from
bore drilling to key plating. The training can take up to three years. Approximately eight employees are true musicians and only a few of these do any test playing on the newly-built instruments. The remaining do more research than playing.

In addition to specialized people, customized tools and machinery are required. These include sanding machines, tone hole drills, and molds for keys. Some basic woodworking tools, such as lathes, can be adapted to meet the needs of Fox Products. However, most of the smaller, more intricate operations are done by hand.

The manufacturing of a bassoon is a long, precise series of events. First, the wood must be chosen. Alan himself, will go to a wood site and choose only the best for a top-line professional model. For the student model, someone else will go. Alan found that he often has to educate the wood handlers on the ways to avoid splitting. The woods used consist of various varieties of maples such as Sugar, Black, and Yugoslavian.

The wood is shipped back to South Whitley and stored in rooms to let dry. Interestingly enough, no temperature or humidity control is exercised. Alan explains that this allows the wood to change so much that when it is ready to be worked, it will be much more stable and strong. Upon reaching a moisture level of six to eight per cent, it is cut into block joints and bored to the required diameter of the bassoon. It then is turned on a lathe, finishing the shaping process, sanded, and varnished. Tone holes are drilled; posts, springs, and keys added until the product is done. Then the instrument is played,
tuned, and checked for any necessary adjustments before being shipped to its new owner. The time it takes to make a bassoon (after the wood has been cured) varies between models. Professional instruments take about 120 days, student (wooden models) about 90, and polypropylene (plastic) will take 60 days to complete. The Fox Corporation sells around 700 bassoons and 20 to 25 contrabassoons yearly.

The finished bassoons are then shipped out to various parts of the world. Most of the instruments sold are student models. Naturally, there are more student bassoon players than professionals, due to the way the music industry is structured. As the new owner begins playing the instrument, the bassoon begins to change, or "break in." The changes, the sound becomes warmer, it is less resistant, and the pitch becomes more flexible. This process can take anywhere from one to ten years.

There are other products manufactured by Fox's company. These include accessories for the bassoons, oboes, and contrabassoons: swabs, bocal brushes, silver polish, reed shapers, and knives. Some of the items, such as swabs, are made elsewhere by South Whitley residents and then brought to the factory.

Also made at the factory are bocals, which are one of the most crucial pieces of bassoon hardware. This metal "mouthpiece" can drastically change the pitch and timbre of a bassoon. Presently, the German makers have an advantage over the design and selling of bocals. This field is Alan's next venture. He hopes to continue the study of the acoustic properties of bocals and
I had the opportunity to visit Fox Products this past September, both to interview Alan Fox and to see the facilities. Though living only a couple of hours away, I had never had the opportunity to see Fox Products, so I was very excited, indeed. As I was driving along the country road, past barns and cornfields, I kept thinking of how strange it was to have such a world-famous company based in this area. Countless famous musicians probably had driven the same route as I was then venturing.

Finally, I reached the outskirts of South Whitley, easily recognizing Fox Products by the fact that, as Alan had pointed out, it was the only building that wasn't a barn!

I had always imagined the home of Fox bassoons to be a giant factory filled with rooms and people scurrying around. I was surprised at the small size of the plant as I drove up the driveway. I walked into the reception area, told the secretary that I had made an appointment to see Alan, and sat down. On a table next to me were stacks of music magazines. As I browsed through them I became aware of the sound of bassoons coming through a door to my right. Every once in a while, a worker would come through that door, and I could catch a brief glimpse of a hallway lined with pictures, presumably of instrumentalists who had visited Fox Products.

The time came for my interview, and Alan summoned me into his office. We sat down and talked for an hour. When I had exhausted my supply of questions, Alan asked me if I would like
to see the production line. I eagerly replied, "Yes." We went through those intriguing doors, and down the main corridor. Off to my left and right were rooms of various sizes, but we went all the way to the back of the building. Here, Alan showed me the large lathes trimming and boring the wood into boot, tenor, and bell joints. Tiny slivers of sawdust flew, landing in great piles on the floor. I was amazed at how these rough and uneven pieces of wood became the smooth, glowing bassoons found in the greatest concert halls. The next process included sanding and smoothing the ridges made by the lathes.

Another small room was used to apply the lacquer and finish on the instruments. Across the hall, several craftsmen had stations for drilling tone holes and posts into the bodies of bassoons and oboes. Skeletons of contrabassoons lined the walls of another room.

The largest room was used for the handcrafting and application of the finer details on the instruments. Delicate keys, springs, screws, and pads are connected to the posts on the instrument's body. I was fascinated by the sheer numbers of tools - ranging from tiny screwdrivers and pliers up to items that I had no idea of what purpose they served. I watched an Oriental man deftly fashion an oboe key over an alcohol lamp, after which it would be silver-plated and joined to the oboe. This was the final step in the actual mechanical aspect of crafting oboes and bassoons, but the true test of an instrument's voice occurred in the tuning room.

Sensitive tuning devices lined a table along one side of
the room, along with pliers, files, and rulers. These are all used in the fine tuning of bassoons and oboes. Music stands filled with orchestral excerpts and études were also present. Before any instrument leaves the factory, its tone, intonation, and key action is checked and adjusted if necessary. Alan invited me to try some of the completed bassoons, but unfortunately, I hadn't brought my reeds with me.

Our last stop was the accessory room, which was filled with shelves and drawers. Here, the distribution of swabs, mandrels, knives, reamers, among others, took place. These are distributed through the mail.

The time was getting late, as it was past quitting time, so I had to say good-bye to Alan. As I drove back to Muncie, I couldn't help but smile and think that I, a college student, had had a personal interview and tour with the president of one of the most influential businesses in the world of music. Needless to say, I was pleased with the generosity of time and patience that Alan Fox gave me for this project.
KATHRYN S. CAMPLESE
bassoon
in
SENIOR HONORS RECITAL
assisted by
Barbara Briner, harpsichord and piano

presented by
BALL STATE UNIVERSITY
SCHOOL OF MUSIC
UNIVERSITY HALL
Sunday, October 14, 1984
8:00 p.m.
Series XXXIX
Number 13
PROGRAM

Sonata in e minor
for bassoon and harpsichord
   Adagio
   Allegro
   Largo
   Allegretto

Benedetto Marcello
(1686-1739)

Rhapsody
for unaccompanied bassoon

Willson Osborne
(1906-?)

*** Intermission ***

Concerto in B-flat Major, K. 191
for bassoon and orchestra
   Allegro
   Andante ma Adagio
   Rondo

Wolfgang Amadeus Mozart
(1756-1791)

Sonatine pour Basson et Piano
   Allegro
   Aria
   Scherzo

Alexandre Tansman
(b.1897)

Kathryn Camplese is a student of Homer Pence
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She has been named the Presser Scholar for 1984-85
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at Ball State University.

This recital is presented in partial fulfillment of the
requirements for the Honors Program at Ball State University,
and of the requirements for the degree Bachelor of Music.
The Italian composer, Benedetto Marcello, is known more as a composer of opera and vocal works than of wind music. A pupil of Lotti and Gasparini, he studied music as well as law. Marcello's compositions include concerti, sonatas and cantatas for various instrumental and vocal combinations.

The Sonata is a typical baroque piece - beginning with a slow instructory movement followed by an Allegro, then another slow movement and Allegretto. Both the bassoon and harpsichord parts are structured in such a way as to allow the performers the freedom of adding their own embellishments.

The Rhapsody for bassoon, composed by Willson Osborne, has quickly become one of the basic repertoire pieces for the bassoon. Born in 1906, Osborne studied with Hindemith at Yale, and then went to teach harmony and theory at the New School of Music in Philadelphia.

The story behind the composing of the Rhapsody is quite unique. In the fall of 1952, Osborne approached the famous bassoonist, Sol Schoenbach, about taping a piece for WNYC of New York, which was doing a series of contemporary American music. Schoenbach readily agreed.

Several weeks later, the Rhapsody was completed. Schoenbach and Osborne taped it under the supervision of a Philadelphia Orchestra player by the name of Gilbert Eney. The session began at 8:00 p.m. and ended that midnight, when composer, performer and technician were satisfied. Then disaster struck. Eney accidentally erased the tape while rewinding it! There was no choice but to do it again. Luckily, things went smoothly afterwards and the Rhapsody was premiered. The composer left Philadelphia a while later, and to this day, no one knows what has happened to Willson Osborne.

Wolfgang Amadeus Mozart (1756-1791) is considered to be one of music's greatest masters. He demonstrated a brilliant talent for music at a very young age. Mozart's father, Leopold, took advantage of the situation and had his son touring and playing for the aristocracy in order to further polish Wolfgang's genius. In spite of his untimely death, Mozart's compositions have remained as some of the greatest contributions to classical music.

The Concentro was written in 1774, during the height of the popularity of the wind concerto. Though only eighteen at the time, Mozart was obviously well aware of the capabilities of the bassoon. He employed passages of humor and wit, shown through the wide skips of staccato and scale passages, as well as demonstrating the bassoon's lyrical qualities in the second movement.

Scored for an orchestra of strings and pairs of oboes and horns (but tonight played with a piano orchestral-reduction), the Concentro is in three movements: Allegro, Andante ma Adagio, and Rondo.
Sonatine pour Basson et Piano

Alexandre Tansman

Alexandre Tansman, born in 1897 in Lodz, Poland, began to compose at the age of eight. In 1914 he went to the University of Warsaw and combined studies in law and philosophy with composition. Later, he moved to Paris and became acquainted with composers such as Ravel, Milhaud, Honegger and Stravinsky. Tansman toured extensively as a pianist during the twenties, appearing with the conductors Koussevitsky and Toscanini. During the war, he resided in Hollywood, where he composed film music. He returned to Paris and, in 1948, wrote a novel about Stravinsky.

The Sonatine was written as a Solo de Concours for the Conservatoire de Paris in 1952. It is dedicated to M. Gustav Dherin. The two outer movements contain harmonies and rhythms reminiscent of Stravinsky, while the Aria is beautiful in its melodic qualities.