Including,
- Look Up, Think Up, Lift Up,
  A Short Biography of Nellie Sargent Johnson

- A History of The Sears Hearthside Loom

Nancy M. McKenna
Look Up, Think Up, Lift Up:
A short biography of Nellie Sargent Johnson
(c) 1998 Nancy M McKenna

"We will remember Mrs. Johnson as a gracious lady who helped to fill the world with beauty and human achievement.

She inspired others to create beautiful things and to find within themselves the ability to weave something noble into the fabric of the world about them.

She was indeed a teacher; a master weaver of textiles and of human lives."

-condensed from the Memorial Service conducted by the Rev. Tracy M Pullman.

Nellie Sargent was born in Massachusetts on September 21st 1887. In 1909 she received a Bachelor of Arts degree in Social Work and Home Economics from Simmons College in Boston. During her lifetime she would also do coursework at the University of Michigan, the University of Wisconsin, Ralph Parson’s Studio (Gloucester, MA) and the Arts and Crafts Society in Detroit, MI.

Her early jobs were in the field of nutrition and diet. She worked in many places on the East Coast in this field, starting as the Assistant Superintendent of the New England Kitchen in Boston, and progressing through the positions of Dietician at Eastern Maine General Hospital, the New York Polyclinic Hospital, the Assistant dietician at Lakeland Hospital in Cleveland, among many more such positions.

The job that changed her life was one she was offered in 1920 at the Women’s Hospital Annex in Dearborn, MI. She accepted it and was to spend the rest of her life in Detroit. In 1922, at the age of 34, Nellie married Charles S. Johnson, a Certified Public Accountant. Within a handful of years, their first son, Thomas, was born. Tragically, in 1928, this young child died, and her second son, Albert, is born. Named after Nellie’s father and perhaps taking after his mother, by 1951 he is on staff at the U.S. Naval Hospital in Philadelphia.

In the meantime, in 1927, Nellie had started offering private weaving instruction in her home. By 1929 Nellie was writing articles for Handcrafter and Weaver, Knitting and Home Crafts Magazine, and had become the Weaving Editor for Design Magazine.

Already well known as a weaver, in 1933 she started producing the newsletter Handweaving News. She wrote and mailed two to four page newsletters, twelve months a year for the rest of her life; some 220 issues in all. The subscribers were located throughout the United States. These issues run the gamut from ancient Peruvian weavings to early manuscripts like those by J. & R. Bronson to the most modern of weaves from Scandinavia. Although she appreciated the old wovens, she often remarked that these are for learning from, and that modern weavers should use the techniques to create their own patterns not slavishly copy the old. “Let us try to design for use today. rather than “copy” what past periods have given to civilization. We are not living in Colonial America, or in the stagecoach days, but in the present age of invention and speed... We can to be sure be inspired by all that has gone before us, but let us try to evolve textiles that belong to our own time, rather than past ages.” When she offered an old pattern in her newsletter, she often described how to use modern yarns to update the look or give the resulting textile a life within the modern home, such as using a coverlet pattern to make towels.
using boucle yarns. Every January issue discussed some aspect of designing handwoven. She also reviewed and sold hard to find books ordered from Sweden, as well as good buys she was able to find from mills. She alerted weavers to weaving related goings on in various cities, and shared her student’s work as well as work sent in by subscribers.

In 1934 she demonstrated weaving at the Naval Armory Exhibition of Women’s Work. Noticing a sample of Rumanian weaving in another stall, a very fine, silk scarf which is used as a head dress by the Rumanian women, Nellie returned to the floor loom she had warped and ready to go, and reproduced the piece: a woven lace based on gauze weave. In Nellie’s words:

“I shall never forget the real excitement of the woman who owned the scarf when she saw my woven piece on the loom. She said, “None of the women of my Country know how to do this now here in America, you are the only one in United States that can do it.” And I am sure that was true at that time. Her scarf was over 100 years old, and woven by her great grandmother.”

In 1936 Nellie sought and received the position of special instructor of weaving and home economics at Wayne State University. She was a very good teacher. Quick yet methodical, she was patient in explaining techniques as most of her student had little or no previous weaving experience. “A witty, gray-haired woman with an infectious interest in weaving.” Is how one former student remembers her, “She was a very kind and patient person and an artist in her weaving and her handling of her students.”

The summer of 1939 finds Nellie in Lima Peru, where she discovers ancient and modern Peruvian weavings. During the month she is there, she collects over 300 samples of this weaving, 200 of which are ancient, many over 1000 years old, and about 100 of which are examples of modern weaving. She also collects a very rare small loom that was found in a burial and a spinning basket with its full complement of equipment: spindles, cotton on ancient distaff and a tool make of a piece of bone which was used to beat down weft threads. Peruvian weaving became her passion, and for the rest of her life she returned again and again to these samples, working out how to weave them. One of her weaving students commented, “It just makes our modern weaving look like nothing at all, doesn’t it.” Some methods were shared through the newsletters and the articles she wrote for other magazines, others were kept in reserve for a book she was writing under contract with Prentice Hall Publishers in New York. Unfortunately, this book was never published.

Nellie spent the summer of 1940 teaching at the Penland School of Handcrafts in North Carolina. By this time, Wayne State was paying her $1000 per year (7 months total, 2 sessions each of beginning and advanced weaving and one session of Home Economics at 10 weeks/semester and approximately 13 hours per week of instruction time.) This year also sees her at the World Fair, her work is shown at the National Exhibit of Contemporary Crafts held at the Philadelphia Art Alliance in Philadelphia, and she discusses handweaving as a business for the first time in her Handweaving News. Looking at the larger picture, she started working on a loom that is easy to use, portable, yet offered enough flexibility to be used in her classes. She developed a 12 inch rigid heddle loom. By 1942, Sears Roebuck and Co in Chicago had purchased the right to produce this loom, sell her manual for it, and her instruction book for advanced weaving as well, through their catalog. It made its appearance in the Spring 1943 General Merchandise Catalog at 27 inches weaving width; advertised as “designed by Nellie Sargent Johnson (nationally known authority on home weaving) to meet the needs of both experts and beginners. Ready Warped. Just start right in and weave. Experts or beginners can weave lovely fabrics. Can be stored in little space, does expert work”. This loom was popular enough that by 1947 Sears was marketing a six shaft 36"/38" weaving width floor loom designed by Nellie as well.

In Nellie’s words, “November 15, 16, 17, 1946: We held our first sale at the Old World Market of
the International Institute ... Our sales were good, but not as large as we had hoped... Weaving was contributed this year by our active membership groups here in Detroit and was very well received with much interest. We were able to show both the small table model Hearthside Loom and the new large folding 6 harness floor loom through the courtesy of Sears & Roebuck Co. They also loaned us one of their show cases and the services of their display experts to help arrange our exhibit.”

Early in 1947, Nellie traveled to Chicago to demonstrate the use of the looms at a special event at the Sears Roebuck & Co. State Street store. There she had the opportunity to meet and discuss looms, threads, etc with many of her Handweaving News readers.

In the meantime, Nellie did not neglect her teaching assignments. In 1943, textiles woven in Nellie’s class were chosen in a nationwide competition and were shown at the Museum of Modern Art in New York.

Through Handweaving News she taught many techniques that were new to the average weaver. She also produced special technique pamphlets detailing the weaving, and offered special traveling exhibits for each of these special courses as well. In addition to those that went with the courses, she produced traveling exhibits on Rare and Ancient Peruvian Textiles, Modern Peruvian Textiles, Articles woven on Portable Hearthside Looms, and offered to make up a custom exhibit on whatever techniques one wanted to learn. One only had to write to her for details.

On the afternoon of May 2nd, she was scheduled to teach two classes at Wayne University. She finished her first class at 5:00 p.m. and walked across the campus on some errands. On the way back, her foot apparently caught in the sidewalk. She fell and severely fractured her left hip. She was taken to Grace Hospital, where her hip was nailed. She appeared to recover quickly and was soon up and around in a wheel chair.

Suddenly, on the morning of May 19th, 1951, her conditioned worsened. She died at 11:20 a.m. from a pulmonary embolism (blood clot). Services were held at the Church of Our Father at Cass and Forest in Detroit, and she was buried in Grand Lawn Cemetery.

“It just makes our modern weaving look like nothing at all, doesn’t it.”

The Sears Hearthside Loom

The name “Hearthside” among Sears products dates back to Sears, Roebuck & Co.’s Golden Jubilee in 1936, where the name can be found in the Fall/Winter general catalog on items such as quilting frames, hooked rug frames and patterns, linens for making scarves, etc.

As of 1940, a waffle weave rug loom was available for $2.75 each which could make a throw rug 18” x 27” in size, using six balls of two ply yarn which ran 60 yards to the half pound ball. This was a simple frame loom such as the potholder looms which are still available. This was the only loom available until the 1941 Spring general catalog, which saw the addition of the Adjustable “Hearthside” rug frame. At the same time, the catalog advertised “Join the Maysville Guild: Costs nothing! Entitles you to certificate, membership button, labels, subscription to the “Shuttle”, magazine. Write away today!

The 1943 Spring general catalog saw the introduction of the “New Portable Hearthside Loom”: a 27” wide rigid heddle loom which came prewarped with Maysville carpet warp. It was “designed by Nellie Sargent Johnson (nationally known authority on home weaving) to meet the needs of both experts
and beginners” (1943 Spring general catalog, p. 515). This edition of the catalog also offers for sale Nellie Sargent Johnson’s instruction book for advanced weaving.

The loom we most often think of when someone mentions a Sears Hearthside loom is the type I have: a six shaft floor loom, foldable, with sectional warp beam. This loom was premiered to the public with the 1946 Fall General Sears, Roebuck & Co. It also included lease sticks, rug shuttle, reed hook and thread guide for sectional warping (raddle), 38” reed (12 dpi) for 36” weaving width (although I have gone the whole 38” without problems). Size open: 48” wide, 42” high, 45” front to back. 22” front to back when closed. Boat shuttles were available, and from the picture, are torpedo shaped, rather than the crescent like shape made by LeClerc at the time, and had a metal bobbin. This loom was sold mostly unchanged until the 1950 Fall General catalog. For the first time, it is sold as the “Hearthside Convertible Loom”; Basically, the same loom is sold with only four shafts in the same castle. The purchaser then has the option of adding the extra two shafts for an additional $18.00 (basic 4s loom costs $129.00 cash) The included reed has been enlarged to 39” as well. In the same catalog, the “Simplified Hearthside Loom” premiered; a two shaft loom, with a 39” wide reed for weaving up to 38” in width.

By the 1951 Fall general catalog, the 6 shaft Hearthside loom is no longer available. In its stead, there is a 4 shaft loom. The two shaft loom is still available. The 1953 Fall general catalog is the last year floor loom are offered, and both the 2 shaft and 4 shaft Hearthside are listed along with a LeClerc 45” loom.

Who Manufactured the Sears Hearthside Loom?

As more than one person mentioned that they thought LeClerc may have manufactured the loom, I e-mailed À Francais Brassard, current owner of LeClerc Looms who answered: “Sorry but I can not answer that question. I bought the Nilus Leclerc Company 3 years ago and I do not records from that time.”

The main clue may be the statement in the catalogs: “Shipped from Kankakee, Illinois. Order from nearest Sears mail order house.” Per the Kankakee County Historical Society records, the looms were manufactured by the Pope Machine Company. Henry Pope founded three companies: The Bear Brand company (hosiery manufacturer) was formed in 1893. The Paramount Knitting Company was formed in 1914. By March 1922 Pope opened the Pope Machine Company which manufactured the machines used in the creation of textile goods. They made machines under the names of several chain stores and drop shipped these machines from their facilities in Kankakee.

A version of this article about the Sears Hearthside Loom was printed in The Weavers Friend.
Dear Weaver,

Weaving is a handicraft that can give you many happy hours as a hobby, besides bringing you a tidy income whether you weave in your spare time for pin-money or do it full time as a living. Join the thousands that are enjoying this fascinating hobby. It’s a fine craft that deserves the best in looms, yarns and accessories—you’ll find them all on the following pages.

Hearthside looms have many improved construction features found only in Sears looms; they make weaving faster, easier, more comfortable. Hearthside looms are priced low for such high quality. Buy any of the Hearthside looms on pages 2 and 3 and you can start right in to turn out priceless one-of-a-kind hand woven articles for your own use or for sale. Accessories and yarns to speed your work vary your pattern, are on page 3. Maysville famous yarns priced in economy lots for weavers are on page 4.

You can join the Maysville Guild absolutely free simply by writing to Sears Personal Service Department. See page 4 for all the advantages you get by becoming a member. Sears also offers you—at no cost to you—the expert services of Mrs. Nelle Sargent Johnson, nationally known weaving consultant. If you have any questions about weaving, just write to Mrs. Johnson in care of Sears Personal Service Department.

Sincerely yours,

Sears, Roebuck and Co.

P.S. Weaving is recommended by educators for vocational schools, special ungraded divisions and handicraft classes. Because it’s so relaxing, it’s ideal occupational therapy for convalescents, the handicapped, and the aged. Hearthside looms are built to take a lot of constant use over a long period of time so they’re especially well suited for hospitals, schools or nursing homes.

Learn-by-doing handicraft classes develop creative abilities, after vocational training. Weaving is also widely used in “special” divisions. Exclusive Hearthside features make teaching loom operation easy.
**New Simplified Hearthside Rug Loom**

Two-harness loom with removable heddles
Designed for speedy, easy operation
Priced low for profitable rug making

$49.00 Cash

Only $3 Down

It’s easy to turn a hobby into a profitable business with this loom. Sears Easy Yarns help you get started right now... pay out of profit.

Designed and priced especially for you who weave rugs to sell. Simplified two-harness construction. All weaving parts of seasoned hardwood to take constant use. Individual heddles can be removed without removing heddle... take one out as many as you like without taking loom apart. Holds 75 yards warp so you don’t need to warp so frequently. Warp beam has four reversible slats each divided into sections by dowels. Turn dowels out for sectional beam, in for plain. Weaves up to 38 in. wide. Comfortable height for kitchen chair.

Loom is 41 in. high, 46½ in. wide, 41½ in. front to back. Comes complete with 2½-inch, 12-dent reed, 400 steel heddles, two leach sticks and one rug shuttle. For other reeds and shuttles, see below.

Shipped partly assembled to save you shipping charges. Easy to finish assembling; instructions included. Shipped by freight or express from Manteno, Illinois; pay transportation charges from shipping point. Send order to your Sears mail order store. Shpg. wt. 150 lbs.

25 CM 4400P... Complete $49.00

---

**Accessories and Yarns... for Hearthside and other looms**

---

**Weavers’ Accessories to speed your work, add beauty and variety to your pattern**

**A** Spool Rack. 8 dowel rods hold 48 spools of carpet warp. Sturdy wood, carefully made. Easy to assemble. Size when assembled 24½ in. high, 27 in. wide.

25 C 04341—Shpg. wt. 11 lbs... Each $3.79

**B** 12-inch Boot Shuttle for finer threads. Wood with metal bobbin holder.

25 C 4342—Shpg. wt. 6 oz... Each 98¢

**C** Large Rug Shuttle 21½ inches long. Made of wood.

25 C 4344—Shpg. wt. 8 oz... Each 98¢

**D** 10-inch Throw Shuttle for fine weaving. Made of wood with wire spindle to hold bobbin of thread.

25 C 4016—Shpg. wt. 6 oz... Each 79¢

**E** 14-inch Flat Plastic Shuttle. For netting or pick-up weaves on all types of Hearthside or other looms. Dark color... easy to see. Ends won’t break.

25 C 4012—Shpg. wt. 2 oz... Each 79¢

**F** 27-inch Flat Pick-up Stick. For special warp threads; just turn sideways to make shed for shuttle. Dark plastic.

25 C 4011—Shpg. wt. 3 oz... Each 69¢

**G** Steel Heddles (not illustrated). 10 in. long; 4½ in. wide. Sold only in lots of 100. Shpg. wt. 1 lb. 6 oz.

25 C 4022... $1.00 for 100

**H** Steel Reeds for extra fine work. Fit all Hearthside looms. 39 in. long.

15-dent Red. (15 threads to inch) 25 C 04018—Shpg. wt. 4 lbs... Each $5.39

12-dent Red. (12 threads to inch) 25 C 04021—Shpg. wt. 4 lbs... Each $5.39

**I** Bobbin Winder. Uses paper bobbins or empty carpet warp spools. Made of metal; Instructions included.

25 C 4013—Shpg. wt. 1 lb. 8 oz... Each $4.89

**J** Skew Reel. Winds shuttles directly from skien. Takes skien up to 90 in. Natural wood. Comes apart for storage.

25 C 4017—Shpg. wt. 6 lbs... Each $3.98


25 C 04014—Shpg. wt. 5 lbs... Each $4.79

**L** Heddle Holder for Hearthside portable table model loom. Makes warping easier. Made of natural wood.

25 C 4013—Shpg. wt. 9 oz... Each $4.99

**M** Tension Box. For sectional warping (up to 30 ends) on Hearthside or other floor model looms. Four over and under tension bars. Clamps to slab stock bar. Wood reinforced with metal. Size 9¼ in. high, 9¼ in. long. Instructions included.

25 C 4020—Shpg. wt. 2 lbs... Each $5.95

---

**Linen, nylon, cotton Yarns**

for texture beauty, durability

**A** Linen Weaving Yarn. Fine quality 100% domestic linen for warp or weft. Hard spun yarn in single or double ply. For colorful patterns, strong fabric. Washable. Natural (unbleached), white (bleached), charrutre (yellow-green), yellow, aqua blue, light blue, dark blue, light green, dark green, light pink, old rose, red, light brown, dark brown.

20's-1 ply For warp. 4-ounce tube (1000 yards).

25C9499—Linen color.

Shpg. wt. 1 lb 4 oz... Each $1.21

20's-2 ply For warp. 4-ounce tube (750 yards).

25C9500—Linen color.

Shpg. wt. 1 lb 2 oz... Each $1.05

Yards... 350 300 200 100 50

350... 3.95 3.75 3.50 3.00 2.50

Lively colors bring out lovely patterns. Comes in size 30 only (300 yard ball). Colors pink, light rose, rose, bright red, dark orchid, orange, yellow, light green, baby blue, light blue, delft (medium blue). Sizes 30, 24 lbs 8 oz, 12 lbs 2 oz. 4 oz.

25 C 4981—Please state both size and color.

3 balls 69¢ 12 balls $2.50

**B** Nylon Warp Yarn. Full-bodied single ply 100% nylon yarn for warp or weft. Nylon dries quickly, won’t shrink, is naturally mothproof... just wears and wears. Fine for rugs, draperies and place mats because it’s so wear resistant. Color natural (cream white) only.

25 C 4952—1-lb. tube (1000 yards). Shpg. wt. 10 oz... Each $1.39

**C** Hearthside 3-ply Cotton in Cones. Mercerized yarn for warp or filler. Wears well and washes beautifully... just what you want in place mats, table scarfs, etc. Color natural (cream white) only.

25 C 4972—1-lb. cone (400 yards). Shpg. wt. 1 lb... Each $1.95

---
Index:

Look Up, Think Up, Lift Up by Nancy M. McKenna © 1998
The Sears Hearthside Loom by Nancy M. McKenna © 1998

Handweaving News Issues:

January 1933- Notes on Color

April 1936 - Simple "Laid-In" Weaving
October 1936 – Slip Stick Weaving
December 1936 - Three Old Colonial Coverlets

November 1937 - A Variety of Threading Drafts for the Four Harness Loom

January 1938 - Designing Handwoven Textiles
February 1938 - Cardboard Loom
May 1938 - Broomstick Loom Rugs
June 1938 - Designs for 3 Pattern Blocks
July 1938- More Notes on 3 Pattern Blocks
August 1938 - 2 Block Designs for M's & O's
September 1938 - Greek Sumac Knot Stitch
October 1938 - Further Notes on Sumac Weave
December 1938 - Warp Pattern Belts on the Heddle Loom

January 1939- Importance of Texture
February 1939 - Swedish 2 Block Pattern
May 1939- Guatemalan Collection of Textiles
June 1939 ~ Designs for 2 Block Pattern
July 1939- Designs for 3 Block Pattern
December 1939 - Different Methods of Weaving Overshot

February 1940- Designing "Crackle" Weave Patterns
March 1940- Peruvian Tapestry Similar to Norwegian " Akiae"
April 1940 - Flossa Rug Knot Technique
June 1940- 4 Harness 2 Block Pattern
July 1940- 8 Harness 2 Block Pattern
August 1940- 3 Colonial Overshot Drafts
September 1940 - How to Sign Your Weaving
October 1940- Weaving at the World's Fair –
November 1940- "Crackle" Weave "Trees" adopted from an Ancient Pattern Book
December 1940- The Business of Handweaving

February 1941- 3 Block Key Drafts
March 1941- "Summer & Winter"
May 1941- Some More "Crackle" Weave Patterns
June 1941 - Variations of Twills
August 1941 - How to Choose a Loom
September 1941 - How to Warp a Heddle
October 1941 - Key Draft 8 Block Pattern for 10 Harness "Summer & Winter"

January 1942 - Designing Name Patterns
March 1942 - Modern "Summer & Winter"
April 1942 - Weaving on 2 Harnesses
May 1942 - Some Modern Variations on M's & 0's Threading Drafts
June 1942 - Designing 4 Block Drafts
July 1942 - More 4 Block Drafts
August 1942 - A Variety of Rug Weaving
September 1942 - A Form of Romanian Gauze Weave
October 1942 - Ancient Peruvian Warp Pattern Textiles
December 1942 - Bronson Weaves: 'Rose & Compass"

January 1943 - Code Drafting
April 1943 - Some Crackle Weave Patterns
May 1943 - 8 Harness Twill Weaves
July 1943 - Laid in Technique
August 1943 - 4 Harness Overshot
September 1943 - Double Brocaded Ancient Peruvian Textile
October 1943 - Ancient Peruvian Slit Tapestry
November 1943 "One Beam" or "Broomstick" Weaving

January 1944 - More Code Drafting
February 1944 - Weaving on the Hearthside Loom
March 1944 - Greek Sumac - A new method of Interlocking Verticals
April 1944 - Brocaded Cap and Jacket
May 1944 - "Crackle" Weave Patterns
June 1944 - Picture Frame Loom
July 1944 - 2 Block Overshot Drafts
August 1944 - Handwoven Hats
October 1944 - Christmas Weaving Ideas
November 1944 - Some Variations in "laid in" Technique
December 1944 - Another Form of Bronson Weave

January 1945 - 4 Harness Twills
February 1945 - Peruvian Brocades from my Own Collection
March 1945 - Key Draft and Pattern Effect for "Lasting Beauty'
April 1945 - 4 Harness Loom Rugs
May 1945 - Modern Peruvian Weft Brocaded Belts
June 1945 - '4 & 1" a new variation of overshot weave
July 1945 - Spanish Weave Variations
September 1945 - Crackle Weave Patterns
November 1945 - Some Six Harness Twills
January 1946- Some Variations on an Ancient Four Block Double Weave
February 1946 – Weaving on the Hearthside Loom
March 1946 - 2 Block Pattern Drafting
April 1946 - How To Thread the Loom
May 1946 - 4 Harness "Tree" Borders
       June 1946- Twill, Herringbone, & Rose Path
July 1946- Threads- Weaver's Material
August 1946- Rag Rug Variations
September 1946- Selling Handweaving
October 1946 – Weaving on the Hearthside Table Loom
November 1946 (one page) - "Summer & Winter" Weaving

January 1947- Two block “5 & 1" and '7 & 1" Threading Drafts
February 1947- How to do Tufting
March 1947- Designing "Crackle" Weave Patterns based on Twill Order
April 1947- Ancient Peruvian Double Woven Cloth
May 1947 – “Flossa” Rug Knot
June 1947- Two 4 Block Patterns
July 1947 – Algebraic Formulae for Draft Writing
August 1947 – Weaving on the “Hearthside” table loom: Some laid in technique
September 1947 – The Language of Handweaving
October 1947 – Drapery or Curtain Material
November 1947 – Six harness Loom Patterns
December 1947 – Combinations of Twill, Herringbone, and Rosepath

March 1948 – Warp pattern Rugs
June 1948 – Bronson Weave

April 1950 – Gauze on Leno Weave

June 1951 Backstitching on the Loom (Brooks Bouquet)

Monographs:

Johnson, Nellie Sargent, Lesson on How to Weave a Double fabric in Pattern on a Four Harness Loom © 1934 self published, paper, Detroit, MI (4 pages)

Johnson, Nellie Sargent, Simple Draw Loom Weaving on a Four Harness Loom © 1935 self published, paper. Detroit, MI (4 pages)

Johnson, Nellie Sargent, Open Work Lace Weaves from the Greek Island of Cos ©. 1935 self published, paper, Detroit, MI (3 pages)

Johnson, Nellie Sargent, “Bratten” Open Lace Weave ©. 1937, self published, Detroit, MI (4 pages)