

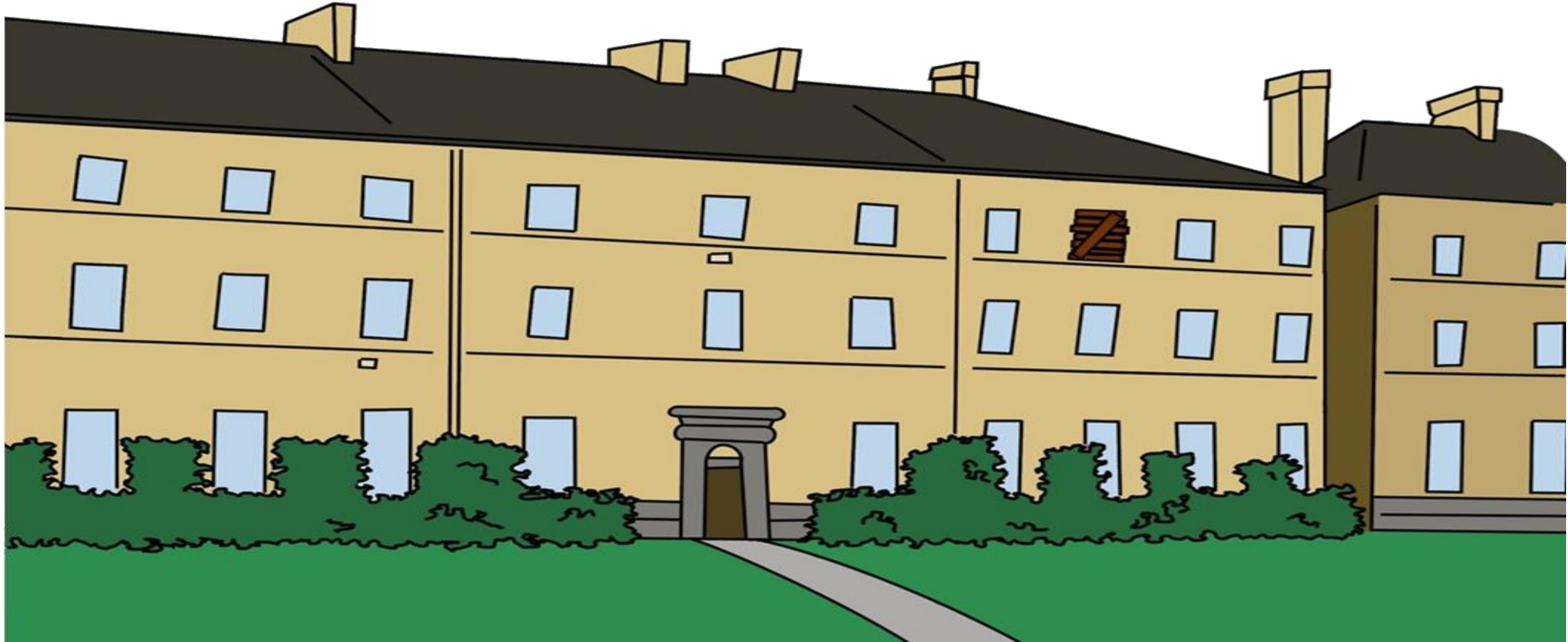
Baker Street *Elementary*

PRESENTS
"THE LIFE AND TIMES IN VICTORIAN LONDON"



Baker Street Elementary

THE LIFE AND TIMES IN VICTORIAN LONDON
A049 -- I CAN SEE CLEARLY NOW - FEBRUARY, 2022



**WELCOME TO TOPIC # 049... TODAY HOLMES AND I
WILL BE LOOKING AT MAGNIFYING GLASSES AND
MICROSCOPES IN THE SHERLOCK HOLMES STORIES.**



**WHILE THE IMAGE OF YOU HAS BEEN TIED TO THE
MAGNIFYING GLASS ONLY 10% OF THE STORIES ACTUALLY
INCLUDED A REFERENCE TO THE USE OF LENSES.**

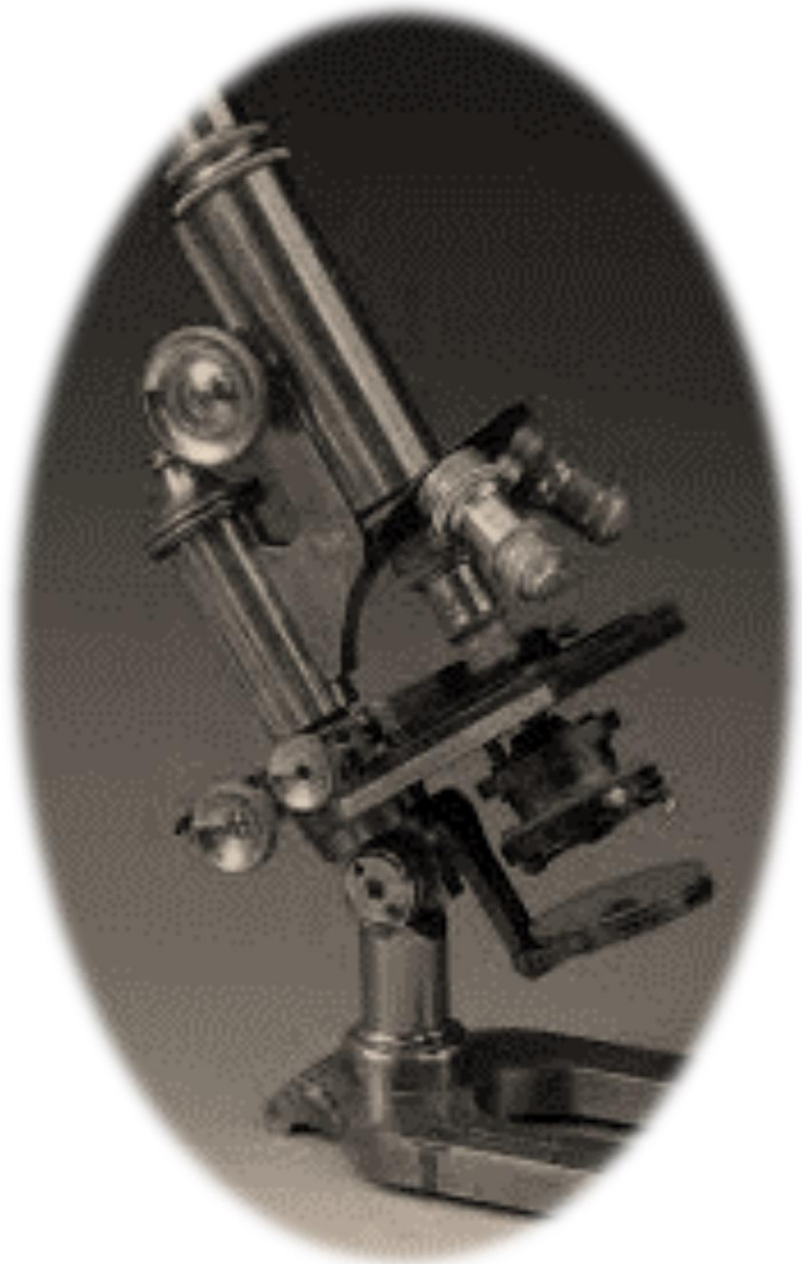


YOU USED A MAGNIFYING GLASS OR LENS IN SIX OF THE SHERLOCK HOLMES' STORIES (A STUDY IN SCARLET, 'THE ADVENTURE OF THE RED-HEADED LEAGUE,' 'A CASE OF IDENTITY'...



...*'THE ADVENTURE OF THE BERYL CORONET,' 'THE ADVENTURE OF THE NORWOOD BUILDING,' AND 'THE ADVENTURE OF BLACK PETER'*) AND A MICROSCOPE AT THE END OF *'THE ADVENTURE OF SHOSCOMBE OLD PLACE.'*

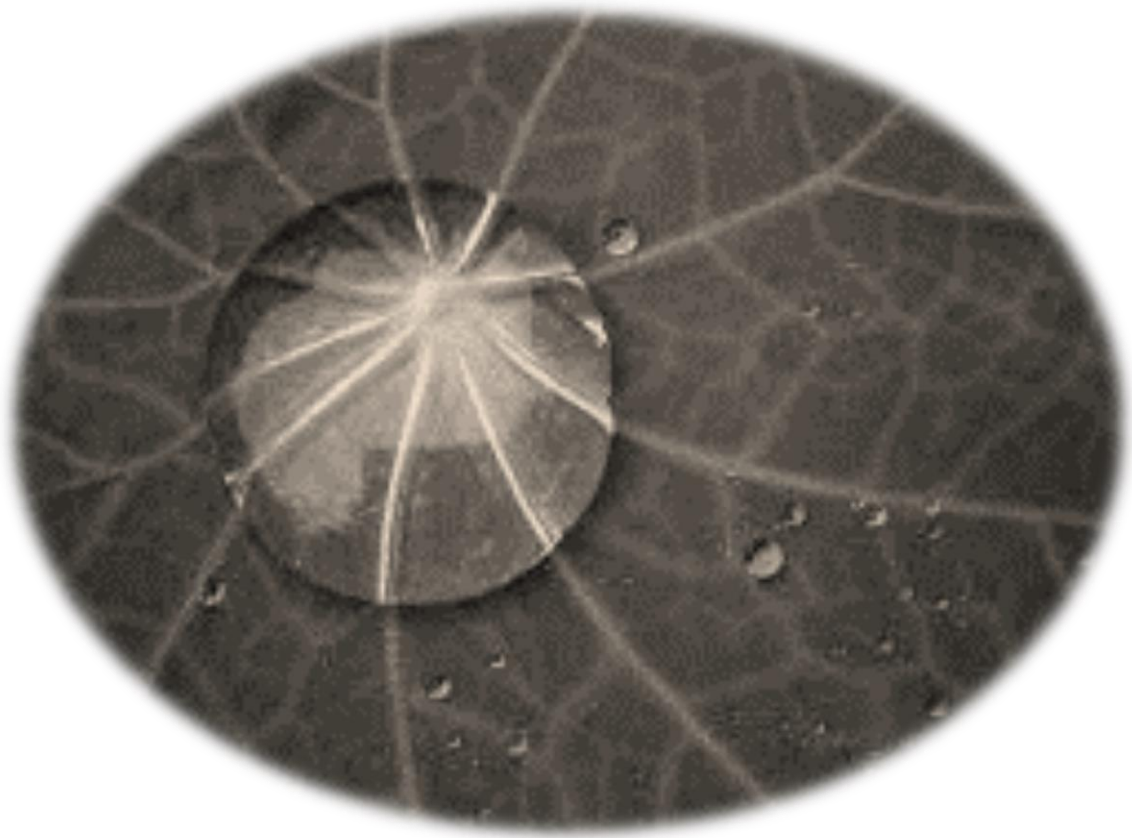




*NONETHELESS, THE HISTORY OF OPTICS
SUGGESTED THESE TOOLS SERVE AS A FITTING
SYMBOL FOR ME.*

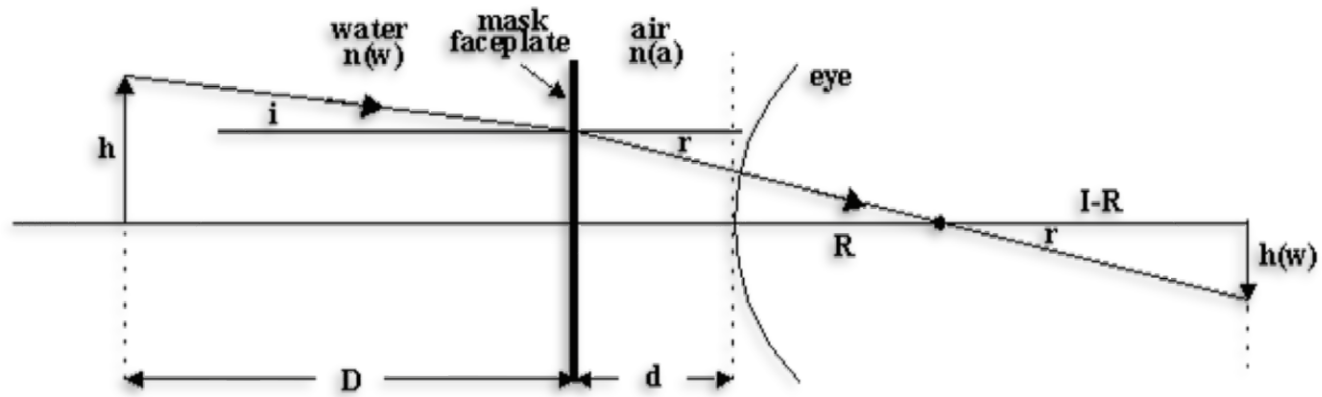


*REFERENCES TO MAGNIFYING DEVICES, MOST
LIKELY USING WATER, DATE BACK TO 424 BC.*

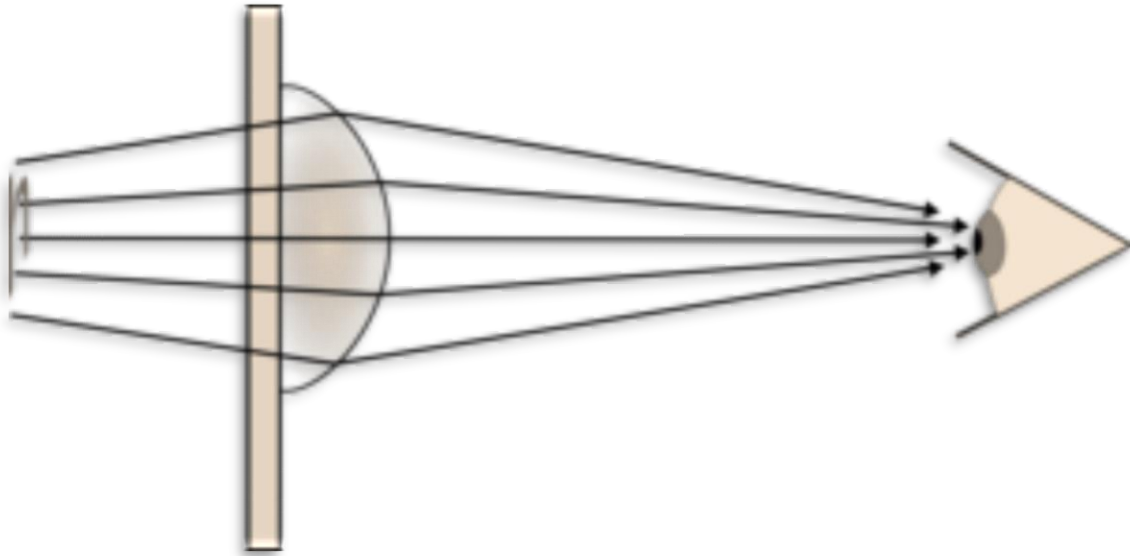


THE ROMAN INVENTION OF GLASS IN THE FIRST CENTURY INCLUDED EXPERIMENTATION WITH DIFFERENT SHAPES.

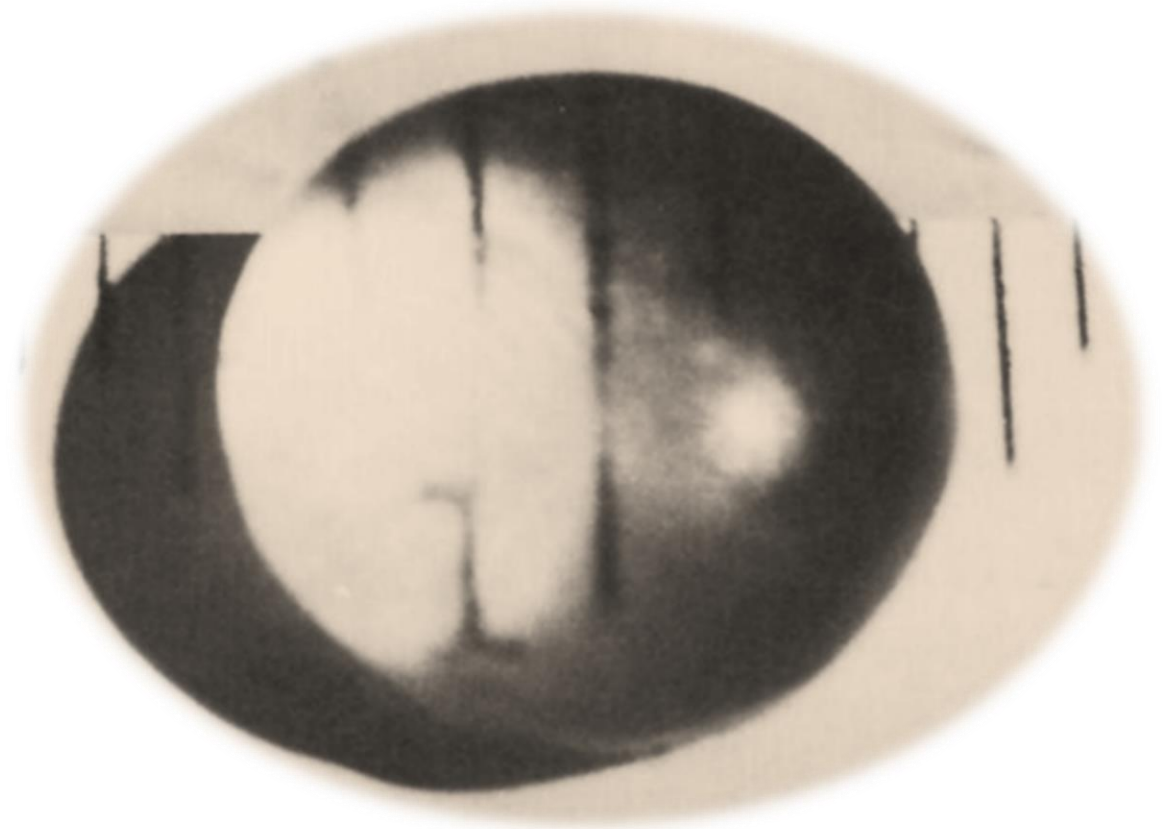
IN WATER



*THEY DISCOVERED THAT THOSE WITH A CONVEX
SHAPE (THICKER IN THE MIDDLE) WOULD ENLARGE AN
OBJECT HELD NEAR IT AND COULD ALSO BE USED TO
BURN OBJECTS BY CONCENTRATING LIGHT.*



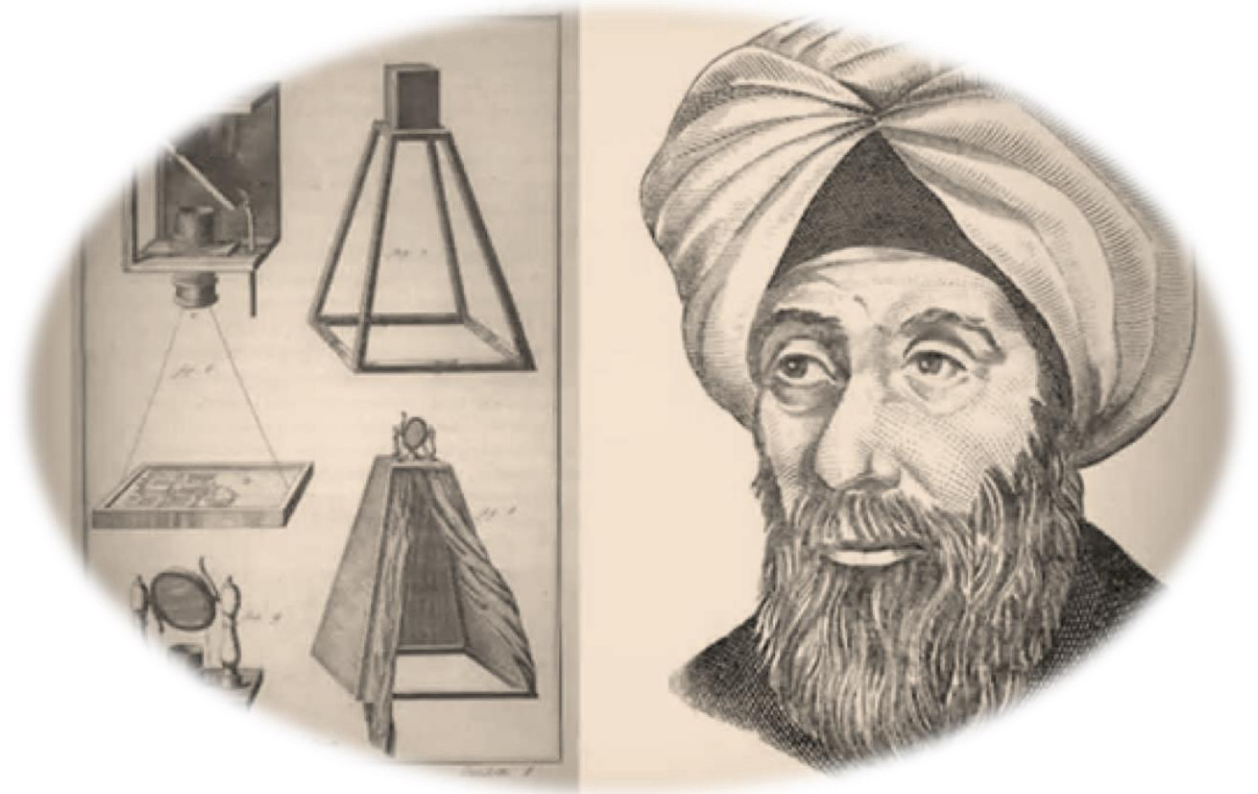
THE TERM 'LENS' DERIVES FROM THE LATIN WORD OF 'LENTIL' BECAUSE THE SHAPE RESEMBLES THAT OF THE LENTIL BEAN.



WHILE THE INTEREST AND USE OF LENSES LANGUISHED IN EUROPE FOLLOWING THE FALL OF THE ROMAN EMPIRE, THE ARAB MATHEMATICIAN IBN AL-HAYTHAM COMPLETED A SEVEN-VOLUME WORK ON OPTICS (WRITTEN FROM 1011-1021). CONSIDERED THE FIRST TRUE RESEARCHER, IBN AL-HAYTHAM FOLLOWED THE SCIENTIFIC METHOD OF TESTING HYPOTHESES THROUGH EXPERIMENTATION FIVE HUNDRED YEARS BEFORE THE APPROACH RE-APPEARED IN RENAISSANCE EUROPE.



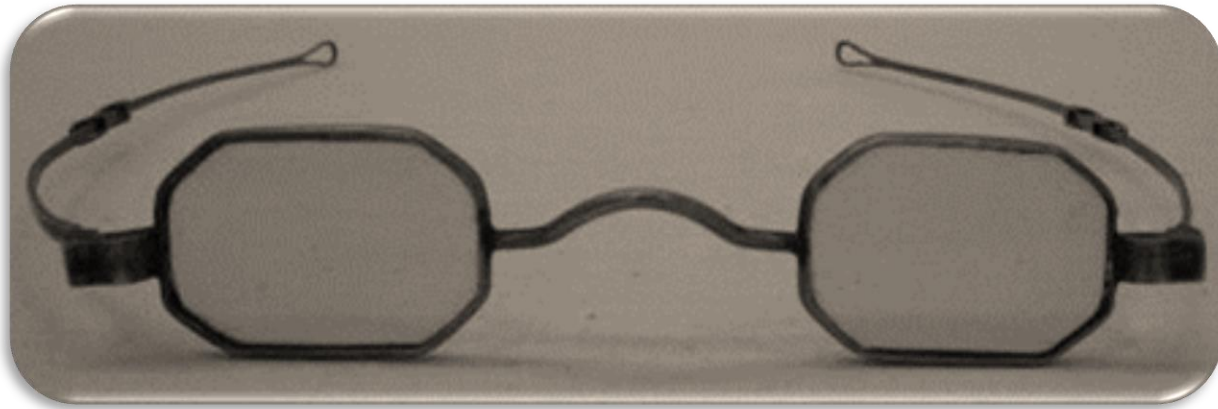
HIS INVESTIGATIONS WITH LIGHT, VISION, MIRRORS AND MAGNIFYING LENSES WERE LATER TRANSLATED INTO LATIN IN THE 12TH OR 13TH CENTURY AND INFLUENCED A RESURGENCE IN THE INTEREST OF LENSES IN EUROPE AT THAT TIME.



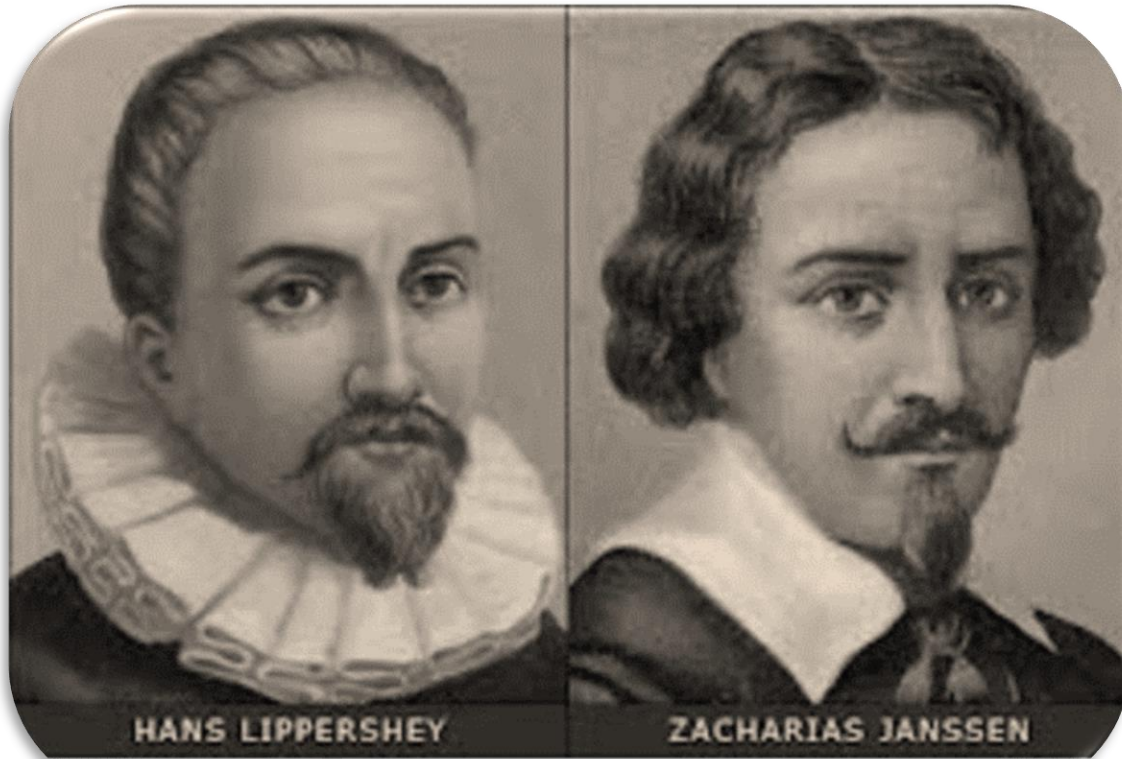
*CONVEX LENSES APPEARED AS EYEGLASSES
(CONSISTING OF TWO LENSES WITH HANDLES
RIVETED TOGETHER) IN ITALY IN THE LATE 1200s AND
IN ROGER BACON'S MAGNIFYING GLASSES IN 1250.*



HE CREATED THESE LENSES FOR ADDITIONAL STUDY
OF LIGHT, MIRRORS, REFLECTION AND REFRACTION
INSPIRED BY THE WRITINGS OF IBN AL-HAYTHAM.



IN THE 1590s, DUTCH SPECTACLE MAKERS HANS AND ZACHARIAS JANSSEN ARRANGED SEVERAL LENSES IN A TUBE AND DISCOVERED THEY COULD INCREASE...



...THE MAGNIFICATION BEYOND THAT OF A SINGLE LENS, BUT IT WAS CONSIDERED MORE OF A NOVELTY THAN ANYTHING WITH PRACTICAL APPLICATIONS.



**ANTON VAN LEEUWENHOEK, HOWEVER, SAW THE
POTENTIAL AND MADE AND USED THE FIRST
TRUE MICROSCOPE.**



HE ALSO DEVELOPED TECHNIQUES TO GRIND AND POLISH LENSES TO REACH A POWER OF 270X MAGNIFICATION.



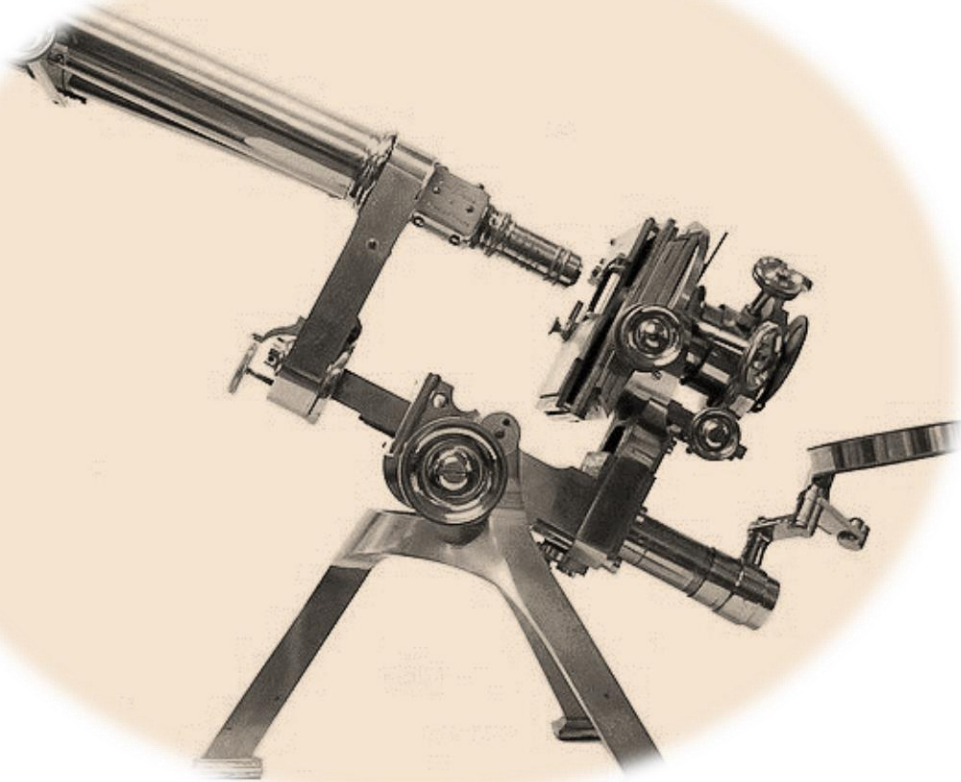
**BY THE VICTORIAN ERA, THE LENSES FOR
MAGNIFYING GLASSES AND MICROSCOPES WERE
WELL-MADE AND VERY PRECISE.**

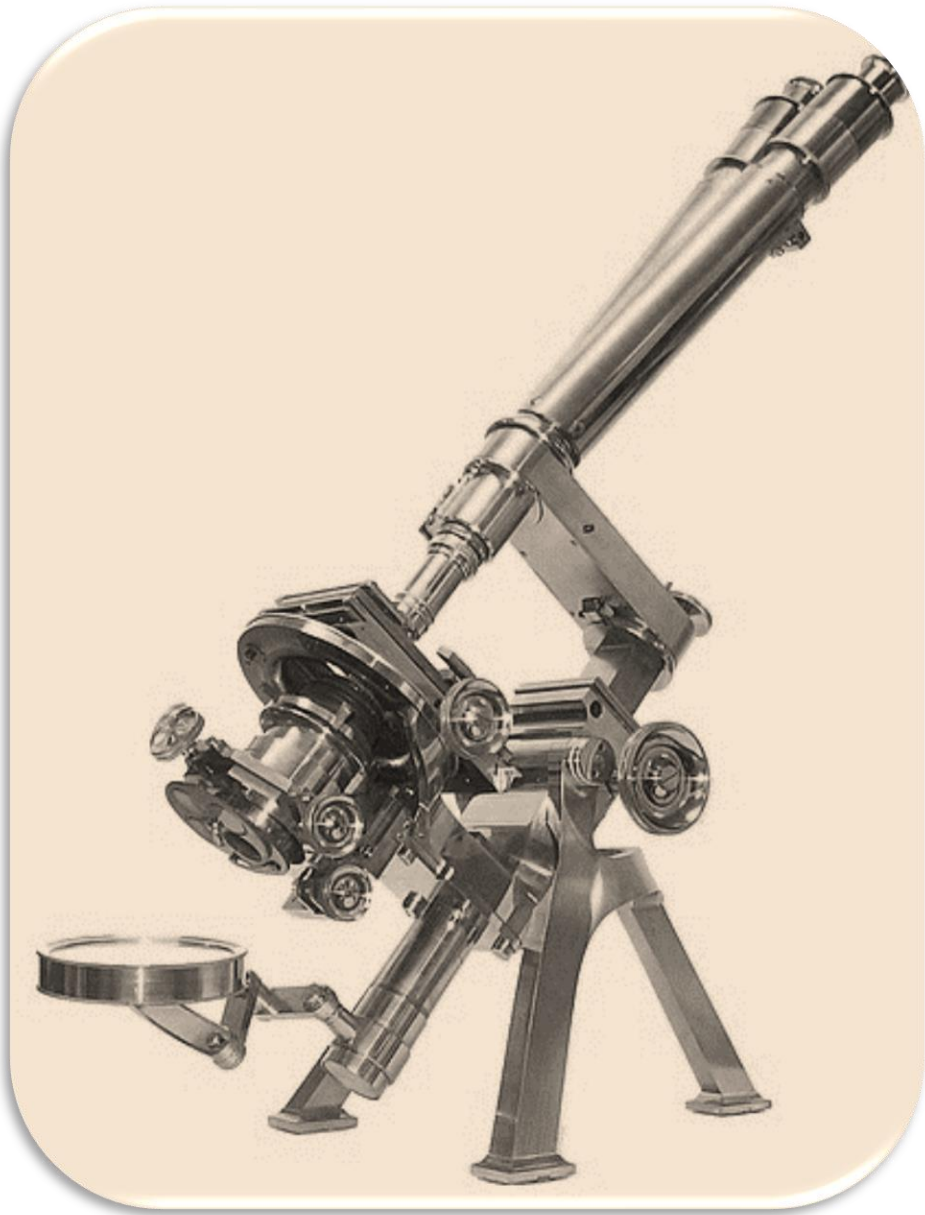


DR. ROBERT ING, A FORENSIC SCIENTIST, HAS CONCLUDED YOU MOST LIKELY USED A '10 POWER SILVER AND CHROME MAGNIFYING GLASS' A MUCH MORE POWERFUL INSTRUMENT THAN THE 2X-6X TYPICALLY AVAILABLE TODAY.



*MY MICROSCOPE WAS MOST LIKELY 'A BRASS TRIPOD
BASE MONOCULAR OPTICAL MICROSCOPE PROBABLY
MANUFACTURED BY POWELL & LEALAND' BASED ON
THE INSTRUMENT'S POPULARITY AT THE TIME.*





**WHILE I MIGHT BE CONSIDERED ILL-EQUIPPED BY
CURRENT FORENSIC LAB STANDARDS, SUCH
EQUIPMENT WAS CONSIDERED STATE-OF-THE ART
AND SERVED ME WELL IN MY PURSUITS.**





THE IMAGE OF ME AND THE MAGNIFYING GLASS
SERVED AS AN APPROPRIATE SYMBOL FOR A DETECTIVE.



**GIVEN ITS ROOTS IN THE SCIENTIFIC METHOD,
THE LENS REPRESENTED MY DISCIPLINED APPROACH
TO COLLECTING AND FOLLOWING FACTS TO THEIR
FINAL CONCLUSION.**



SO, WE HAVE COMPLETED TOPIC # 049 IN OUR SERIES...

*IN TOPIC # 050, WE WILL BE LOOKING AT GOVERNESSES IN THE VICTORIAN ERA
AND THE ROLE THEY PLAYED SO OFTEN IN OUR STORIES.*



REFERENCES FOR THIS TOPIC:

- [HTTP://WWW.HISTORY-OF-THE-MICROSCOPE.ORG/INVENTION-OF-GLASS-LENSES-AND-THE-HISTORY-OF-THE-LIGHT-MICROSCOPE.PHP](http://www.history-of-the-microscope.org/invention-of-glass-lenses-and-the-history-of-the-light-microscope.php)
- [HTTPS://EN.WIKIPEDIA.ORG/WIKI/IBN_AL-HAYTHAM](https://en.wikipedia.org/wiki/Ibn_al-Haytham)
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- [HTTP://WWW.HISTORY-OF-THE-MICROSCOPE.ORG/HISTORY-OF-THE-MICROSCOPE-WHO-INVENTED-THE-MICROSCOPE.PHP](http://www.history-of-the-microscope.org/history-of-the-microscope-who-invented-the-microscope.php)
- [HTTPS://WWW.SMITHSONIANMAG.COM/ARTS-CULTURE/SHERLOCK-HOLMES-AND-THE-TOOLS-OF-DEDUCTION-10556242/](https://www.smithsonianmag.com/arts-culture/sherlock-holmes-and-the-tools-of-deduction-10556242/)



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"THE LIFE AND TIMES IN VICTORIAN LONDON"

IS CREATED THROUGH THE INGENUITY & HARD WORK OF:

JOE FAY
LIESE SHERWOOD-FABRE
RUSTY MASON
&
STEVE MASON

